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## Working Paper Series

Emerging Issues and Alternatives  
in  
Skilled Manpower Training  
A seminar at The Guild Inn, Scarborough  
17-18 September 1978



Ontario Economic Council  
Toronto, Ontario





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## Contents

Introduction

Participants

Major Issues in Vocational Training 1

D.N. Omand

Discussion 22

Employer-Sponsored Training: Basic Concepts 37

H. Noble

Discussion 53

Evening Session: Educational Leave 71

R. Adams

The Role of High Schools in Vocational Training  
and Counselling 85

D. McVie

Discussion 101

Vocational Training for Women: Problems and Prospects 117

J. Wood

Discussion 129

Community Colleges and Vocational Training 139

R.B. McAusland and R.F. Giroux

Discussion 161



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## INTRODUCTION

The role of universities and non-university institutions as sources of supply of skilled manpower has recently attracted considerable attention from governments, the academic community, and the private sector, as well as the public at large. The Ontario Economic Council, in an attempt to provide a forum for discussion and to facilitate an exchange and interaction of ideas on the issues involved, sponsored a first seminar on post-secondary education in the province held in May 1977. The proceedings of that seminar, dealing predominantly with the university sector, have already been published in the Council's Discussion Paper series (Emerging Problems in Post-Secondary Education, 1977).

A second and complementary seminar, held in September 1978, was concerned with the development of skilled manpower by the non-university educational sector. Clearly, this sector consists of secondary schools and community colleges, as well as vocational and technical training institutions. The present volume brings together the papers presented in the seminar, comments by formal discussants, and the general discussion.

Interest in the issue of skilled manpower development may be explained by the fact that the present situation in the province, the net result of a series of factors, ultimately generates a variety of private and social costs. Thus, the demographic character of the population has produced an increase in labour supply which, given the state of the economy, cannot be absorbed into employment. In the longer run the age distribution of the labour force is shifting towards an aging stock of skilled manpower. Finally, problems of skill mismatches have appeared in the labour market, which result in unemployment or underemployment of young people.

The objective of the seminar was to explore aspects of the role of non-university institutions as sources of skilled labour supply. The major theme of the conference was therefore concerned with the education-labour market relationship in a broad sense. This encompasses not only questions of unemployment and underemployment, but also mismatches in the labour market, the transition from school to work, the question of female participation in vocational training, and the educational leave option. These aspects were addressed in the formal presentations and in the general

discussion, which provided an opportunity for a variety of perspectives to be heard.

While the seminar did not produce solutions to the questions concerned, it brought into clearer focus the nature and dimensions of the problems associated with the development of skilled manpower in Ontario at this stage. It is hoped that the publication of the proceedings will not only increase awareness about the state of skilled manpower training but will also promote the exploration of alternative avenues of action for the eighties.



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EMERGING ISSUES AND ALTERNATIVES IN SKILLED MANPOWER TRAINING





Major Issues in Vocational  
Training  
D.N. Omand

For the purpose of this paper I have selected a definition of the word "Vocational" from Webster's New Collegiate Dictionary, 8th edn, as follows: "of, relating to, or being in training in a skill or trade to be pursued as a career." In other words we are discussing training processes directed to fitting the trainee to carry out work in industry as a means of livelihood, as distinct from general education, or what has been called life-style enrichment. This covers a wide range of skills and training requirements. The high school dropout who fills your gas tank at the service station and to whom you point out the location of the dipstick to check the oil may know the rudiments of his "trade" in half an hour. He is employed in a service industry and for our purpose is practising a trade. He may have the option of entering a one-year apprenticeship program to become a fully qualified service station attendant.

At the other end of the spectrum is the highly skilled tool and die maker, who makes the instruments used by other craftsmen in complex manufacturing processes. His skill is probably the product of many years of apprenticeship and subsequent work experience. In his hands are machines and materials worth hundreds of thousands of dollars, and on his skills depend the jobs of hundreds of other workers. He is employed in a manufacturing industry and for our purposes is also working at a trade.

Any discussion of vocational training must also address training for service industries. This is an area that is assuming increasing importance as urbanization proceeds in the province. In Ontario more than 40 per cent of new jobs created since 1966 have been in service industries (Skills for Jobs Conference, background paper, June 1978).

This discussion will be concerned mainly with the various levels of vocational training between these extremes but will be strongly skewed towards vocations requiring longer and more intensive training and a greater commitment on the parts of both trainer and trainee. These skills are more critical to our economy. Problems associated with provision of these skills are less amenable to short-term, improvised solutions.

I should also, at this point, mention that the term "apprenticeship" has a specific meaning in law, under the Apprenticeship and Tradesmen's Qualification Act. The term will be used in that sense and not in a general sense to mean any form of job-related training.

The history of vocational and trades training in Ontario is ably summarized in two documents. Federalism and Policy Development (Dupré et al., University of Toronto Press 1973) summarizes the Ontario history and the involvement of federal policy-makers over the years. The report of the Dymond Task Force, Training for Ontario's Future (Ministry of Colleges and Universities, Manpower Training Branch 1973), also provides a concise summary of the history of vocational training in Ontario since the turn of the century. This summary leads the authors to discern a number of trends:

- Occupational training has become steadily more of a public than a private responsibility.
- Developments over the last fifty years have tended to increase the number of training programs available.
- More workers have become eligible for government assisted training.
- The federal government has played and will continue to play an increasing role in vocational training.

The present interest in vocational training seems to have stemmed from a number of events and revelations in the late summer of 1977 that led to a general realization that Ontario's industry is handicapped by a shortage of skilled workers, particularly in highly skilled trades. While a number of



concerned employers and their associations had been aware of developing problems for some time, more general public awareness was sparked by certain events.

A report sponsored by the UAW Local 127 in Chatham and funded by the Federal Department of Manpower and Immigration (October 1977) uncovered a need among employers for a large number (over 2500) skilled tradesmen for present and projected production. There was no evidence that existing programs would come anywhere near to supplying this number.

An unpublished report commissioned by the federal government, The Robertson-Nickerson Report, was made available to provincial officials in the fall of 1977. It detailed a number of alarming statistics. In sixty-one companies and unions in the Toronto/Hamilton/Guelph area, 29 per cent of the companies were seeking additional tradesmen. Of the present skilled work force, 87 per cent are forty years of age and over; 73 per cent were born out of Canada; only 1.6 per cent are younger than thirty; the proportion of apprentices to skilled workers is 3 per cent; and so on.

In September 1977 the Ministry of Colleges and Universities convened a symposium, "Focus on Apprenticeship," which dealt specifically with the apprenticeship system as a means of meeting skill shortages. In opening this symposium Premier Davis expressed the deep concern of his government about the effect on Ontario's industry of the shortage of skilled workers while at the same time a serious unemployment problem was affecting particularly the 15-24 year old age group. He commented on the elitist attitude that has emphasized college and university education and diminished the status of the craft worker.

The reports referred specifically to the shortage of skills in trades which are part of the apprenticeship process. There is good reason to believe that many of the concerns expressed over the shortages of apprenticeable trade skills apply equally to a great many of the vocational skills acquired by other means, such as in secondary schools and community colleges. The explosion in the application of computer technology to a host of processes is one major facet of this.

Training in many of the latter areas is only now beginning to assume the on-the-job pattern characteristic of apprenticeship training for hundreds of years. One major problem lies in the fact that new developments in technology are coming so rapidly that in many disciplines the formal educational system can do no more than provide a grounding in theory. The graduates will continue to be retrained by their employers for most of their working lives.

Over the past two years the Industrial Training Council has heard many presentations from representatives of labour employers, businessmen, educators, and various special interest groups, all conveying similar signals. The needs of both employers and potential trainees were not being met by existing systems, and a number of issues have been raised, which I now propose to address. There is no particular order of magnitude or priority to these. Each affects individuals and employers differently, and each has varying effects in the various regions of the province. All are interdependent.

Fortunately my assignment covered only the statement of issues. The resolution of the issues is another matter entirely. In some areas solutions may be appearing, but by no means in all.

#### WHO SHOULD BE RESPONSIBLE FOR SKILL TRAINING?

One of the most important issues encountered in discussing problems of vocational training is who should do it. It is generally agreed that, to be most effective, vocational training should have a substantial component of "hands-on", workplace experience. This is the basis of apprenticeship and intern training in trades and professions and is also an important element in co-operative education programs.

Many large firms have extensive training establishments, and take all the responsibility in-house for the development of their own training programs. IBM and Bell Canada are examples of these. Others enlist the co-operation of the local

community college, developing courses specifically related to their training requirements under various financial arrangements. Both Denison Mines and INCO have such arrangements for technician training with Sault College and Cambrian College respectively. (In one case, the company staffs and equips the training centre at the college.) In these cases training is accepted as a legitimate cost of doing business, and the company's skill requirements are so unusual that they are unlikely to be met in any other way.

Smaller employers on the other hand can rarely afford major training establishments, and many argue that they are already supporting an elaborate educational system through taxes and it should be able to provide for their needs.

The issue of relevance, which I shall deal with next, is important here. If a company's skill requirements are such that relevant training, except for general theory, is simply not available in a public system, it has no choice but to create its own programs. But there are other reasons why companies carry out their training programs. Some are wary of government involvement. One automobile manufacturer in Windsor will not register its apprentices, because this would bring Ministry counsellors on the premises, which it considers the thin edge of interference with its programs.

In many vocations the role of the public sector is fully accepted, and recruits are graduates of a school or college program which brings them to a high degree of competence in the vocation before they seek employment. Nursing and health care programs in community colleges are examples.

Opinions and attitudes, at least as far as they can be interpreted from the known policies of organizations, vary widely in this question. As a rule of general application, one could say that private sector employers, particularly the larger ones, are prepared to do much of their own training, while public sector employers expect their recruits to be more job-ready on intake.



## RELEVANCE OF TRAINING

Obviously any training program conducted by a company in-house for its own employees will be carefully designed to meet the skill requirements of the employer and will be fully relevant to the job at hand. However, vocational training carried out in secondary and post-secondary institutions is often, in the experience of employers, of limited value in the workplace. This is by no means always the case. For instance, the training of nurses and other health science personnel in Ontario's colleges of applied arts and technology is planned in close co-operation with the Provincial Advisory Committee on Nursing Education and is continually fine-tuned through the Council of Regents and the Ministry to meet, as closely as possible, the demands of the work situation and the expectations of employers. This is one reason why nurses trained in Ontario are much in demand in other jurisdictions. Graduates of underwater skills courses are similarly in demand.

There are other disciplines, however, where the training process is less effective in meeting employers' requirements. In various branches of welding, in electronics, in forestry, and in other vocations, the training provided in the school system simply does not equip the trainee with the skills employers are seeking. We have heard of many cases in which employers prefer to take recruits who have not been exposed to the school training and train them themselves to meet their requirements.

It is obvious that no school system can meet the requirements of all employers, and few employers expect that a new recruit, fresh from school, will be able to accept full responsibility of a job of any real significance. They do, however, expect that new recruits will have a basis of knowledge and skill on which their particular orientations and job-related training programs can be built.

Community colleges were originally set up with a strong emphasis on the word "community". They were envisaged as closely tied to the local scene, supplying vocational training

that would fit graduates to take jobs with local employers. (Some of this attitude still remains, particularly in the extension departments and in the more remote colleges.) A liaison system was set up providing for regular input to the colleges from local businessmen and employers through a system of advisory committees.

While in a few instances, such as the examples cited above, the system works well, in a great many it has been allowed to fall into disrepair. Although liaison committees exist on paper, they seldom meet, and when they do the membership is often not fully representative of the community. At the same time there is a tendency to homogeneity in many colleges and a tendency to lose the close association with community requirements.

Part of the problem, as reported by employers, is attitudinal. The transition from the relative freedom of the school environment to the much more rigid environment of the workplace is always a difficult one. Problems of this nature can be exacerbated where the expectations of the new recruit do not correspond with the expectations which the employer has for him.

In the Hamilton area a new body is being assembled, called an Industry/Education Council. Its purpose is to ensure effective and continuing liaison between employers and the secondary and post-secondary school systems, to increase relevance of training, and to provide for opportunities of interchange between school and workplace for senior students. In addition, Mohawk College in Hamilton begins a co-operative vocational training program this fall which will provide for alternating school and work terms, modelled on the very effective co-operative university programs offered at the University of Waterloo.

Developments such as these could go far to help resolve the issue of relevance as well as the problems of adapting to the workplace. The enthusiasm and commitment of the people involved are very important in the Hamilton area.

Another aspect of relevance has to do with the provincial standards in apprenticeable trades. Standards of trade skills which may be entirely appropriate in high-rise construction in Toronto may have little meaning in a small community in Northern Ontario. In Timmins, the Industrial Training Council discovered, tradesmen who had been functioning effectively for years and whose services were in demand could be put out of employment because their qualifications did not meet standards that had no meaning in the work they were doing. While no one would suggest that trade standards should be abandoned, a measure of flexibility and common sense is frequently necessary in applying them.

#### FEDERAL-PROVINCIAL CONCERNS

While the BNA Act is quite unequivocal in the matter of provincial jurisdiction over education, the clear-cut lines become blurred when the matter of vocational and technical training is concerned. "For it is here that the federal jurisdiction in economic matters overlaps the provincial jurisdiction in education" (Dupré et al., 1973). About the turn of the century, as industry began to assume greater importance in the Ontario economy, vocational training began to assume greater importance in the educational scale of values. The Industrial Education Act of 1911 set up the technical and vocational school systems designed to prepare students for work in industry. In 1919 the federal government passed the Technical Education Act, which provided for its financial involvement in vocational training under a cost-sharing arrangement. Skill requirements of industry and the armed forces during the second world war led the federal government to participate on a co-operative basis in a number of vocational training programs, mostly using a 50-50 cost-sharing arrangement. Following the war, these co-operative efforts were expanded with the Technical and Vocational Training Assistance (TVTA) Act (1960), which was designed to provide for vocational training in secondary schools and for the unemployed. It also provided assistance



for capital construction and to equip schools. This resulted in a significant expansion of vocational training facilities in Ontario. It also provided for programs of training in co-operation with industry such as TIBI.

Financial assistance under the TVTA Act was used by the province as well to establish the system of colleges of applied arts and technology under legislation passed in 1965. The colleges are used extensively to provide training to unemployed persons, financed by the federal government under the Adult Occupational Training Act (AOTA). The clients are usually referred to the colleges by Canada Manpower Centres. Training places are purchased by the federal government, and this has become an important source of revenue to the colleges.

The issue in this federal-provincial mix of funding and responsibility lies in the different perceptions of adult training held by the two jurisdictions. Former Prime Minister Pearson stated the federal positions in 1966: "The federal government believes that the training and retraining of adults for participation in the labour force is well within the scope of its jurisdiction." The provincial position was stated in a report of the Ontario Economic Council, "Expanding Employability in Ontario" (1967), as follows: "Technical and trades training should not be segregated from the school system but integrated into a complete adult educational program offering different kinds of training for varying individual needs." The provincial authorities believe in the advantage of having industry and organized labour share with government in this responsibility and expect all parties involved to respond to needs identified at the regional and local level. Federal programs tend to seek a common denominator, are broadly based geographically, and are much less amenable to local interpretation of need.

Federal policies have also been accused of distorting training programs to achieve social ends. People who can be referred to training programs may be removed from the unemployment rolls, whether or not the training is to be to their future advantage. At the same time the provincial training

establishment has become increasingly dependent on infusions of funds from the federal treasury, both in grants and in purchases of training places for provincial institutions. This has created in provincial circles a feeling of vulnerability to sudden and unilateral decisions at the federal level.

To the person in the street, the trainee, or his potential employer this may not appear to be much of an issue. He may not much care whether his needs are met by expenditures of the federal or the provincial tax dollar. But to the people responsible for planning and initiating vocational training programs it can be an important issue indeed.

#### THE IMAGE PROBLEM

Since the second world war, and especially since the vocational upheavals of the sixties, the image of the blue collar worker has suffered. While it is true that there are figures to show that a fully qualified plumber has a lifetime earning potential equal to that of the average lawyer or architect, trades training at the secondary school level and afterwards is perceived as a last resort of those not destined for university or community college. Since less than 30 per cent of secondary school leavers enter either of these institutions, a major percentage of young people leaving the secondary system must find their various ways into the world of work by whatever means they can.

Active promotion of trades training in the secondary schools has not been a high priority. A few teachers who entered the profession by means of skilled-trade qualifications have attempted to promote trades training, but, heavily outnumbered by their academically oriented colleagues, they have faced an uphill battle. As a result, much expensive equipment installed in secondary school shops either sits idle or is used inefficiently and infrequently. In recognition of this, the Windsor School Board has developed new initiatives to go into effect this fall which will encourage students to accumulate credits toward an apprenticeship in the metal cutting trades

during their high school years. This initiative is being examined by a number of school boards, including Peel, Hamilton/Wentworth, and Sault Ste Marie.

This is not to suggest that the discouraging of vocational careers is to be laid entirely at the door of the secondary school system. Even under the best of circumstances school guidance teachers have many responsibilities and cannot hope to see and help students as they would ideally wish to do. They also have difficulty in keeping up with the continually shifting series of prerequisites and entry requirements to trades and vocations. There exist computerized career counselling systems which are continually updated and are designed to relate the students' interests and course background to career possibilities, but the terminals are expensive and by no means universally available.

A host of other day-to-day influences affect the students' choice of a career. Parental and peer pressures are important. In many families, sons and daughters are expected to achieve a higher social and financial status than their parents. This is seen as requiring employment in professional or executive careers rather than in trades. The image is regularly enforced by television, films, magazines, and life-style advertising. Archie Bunker's daughter married a university lecturer. One cannot imagine Marcus Welby's daughter, if he had one, marrying a construction worker. However worthy he might be, the situation would not fit the stereotype.

In the Industrial Training Council meetings we have heard these problems stated in many ways but little in the way of solutions. An information program has been suggested to improve the image of the industrial worker. This would involve films, visits to schools by industrial workers, visits to plants by students, and so forth. These are proposed in the Windsor area, and the response will be watched carefully. It is true, however, that of all human attributes attitudes are the least amenable to change.

## MODULAR TRAINING VERSUS TRADITIONAL APPRENTICESHIP

Traditional apprenticeship is based on a prescribed number of hours of work at steadily rising levels of skill, interspersed with a prescribed number of hours of classroom training in theoretical knowledge which applies directly to the skills being acquired. Progress through the system is based on time spent, and it is assumed that proficiency will be achieved through on-the-job exposure to the workplace under the guidance of a skilled worker.

Modular training systems are based on the idea that any skill can be broken down into subsets of individual capabilities, and these can be taught as units. As the trainee demonstrates proficiency in each unit his achievement is recorded. The more modules he accumulates, the greater is his skill level. It is performance-based, that is, with the trainee advancing at a rate set by his own ability to show proficiency, as against time-based, that is, with the trainee advancing after a fixed period of time at each level. Its proponents urge its flexibility. Let us take as an example the skill of mining. A miner needs certain core competencies. He needs to have basic safety training. He must know how to use and maintain certain equipment, drills, machines, and so on. He must know how to handle explosives. Given these and other competencies, or modules, he may add others that are required, say, to work in hardrock mines in Sudbury. Others, not necessarily the same ones, may be required in an open pit mine at Steep Rock. Still others would be needed for salt mining at Goderich.

Other advantages lie in flexibility. A trainee may take as many modules as he wishes to ensure his continued employability at a skill and pay level that suits him. He does not have to learn skills that he will rarely or never use. This helps the training employer as well, because he does not have to invest in training for skills which he does not require.

There are, however, eloquent opponents to modular training systems, notably among labour leaders. In their view the



system can lead to exploitation of workers, because the employer trains only to the level he requires and the trainee is locked in. The fear is expressed that the trade will become "fragmented". Instead of a fully trained auto mechanic we will have workers trained in individual systems but who cannot be considered fully trained. Thus mobility is limited and the trade debased.

Many labour leaders argue that an employer has an obligation to society to provide fully skilled tradesmen, even if this requires training beyond the level of skill required by the employer. On the other hand many employers will insist that they need train only for the skills they require in their plants, and further training is an unwarranted expense that may indeed lead the fully trained employee away to look for a market for those skills which he has learned but is not using.

There is very little room for compromise between these two positions. In cases where the union places a high priority on training, the whole matter reaches the bargaining table, and the labour representatives demand a voice in the planning of training processes, the quality and quantity of training to be done, and the qualification of trained workers. The UAW takes this position in Windsor. In other areas, training is further down the priority list of labour demands and is entirely a matter of company policy, albeit frequently under protest. This is the state of affairs in Sudbury where the United Steelworkers of America is the bargaining unit. Again, both positions have merit. The question will probably be eventually resolved in the negotiating process, as training programs increasingly become matters of concern to labour.

#### RAIDING OR POACHING

On-the-job training is an expensive process. A study commissioned by the Ministry of Colleges and Universities (The Costs and Benefits to Employers of Apprentice Machinists in Ontario, Currie, Coopers and Lybrand, February 1978) surveyed ninety companies of various sizes to determine the cost of

apprenticeship programs they ran. The average cost per company to produce a journeyman over a five-year apprenticeship, including turnover costs, overhead, instructor time, and the cost incurred because the instructor was not in production, was \$47,723. This, of course, was one of the most highly skilled trades, requiring a five-year training period. Probably no other trade training program would incur nearly these costs, but it is true that each fully trained worker represents an investment by some employer somewhere.

Smaller employers, those with fewer than fifty employees, do much of this training. Their shops are often without union contracts, and wages do not compare very well with those offered by large employers whose workers are represented by active and sophisticated union negotiators. As a result, these smaller employers are very vulnerable to raiding, and the study mentioned above identified a 25 per cent turnover rate after five years of employment.

The solution frequently proposed for protecting employers who invest in training from raiding by those who do not is some form of levy-grant scheme such as that in effect in the United Kingdom. In this scheme a training levy is made against all industries, and those who train to prescribed standards are eligible for grants from the fund so provided. Thus the non-trainers subsidize companies that have training programs. In some industries in the United Kingdom, notably in engineering, it works well, but the proliferation of boards and bureaucracy involved is distasteful to many.

Associated with this problem is the well-established tendency to look for trained employees outside the country. This has been going on since the second world war, and the figures quoted above from the Robertson-Nickerson Report are a measure of how far the process has gone. That report referred to skilled trades, but the same solution to the shortage problem is practised in many vocations. The hospitality industry is a major example among service industries. Many industries are cyclical, and the upswings do not allow for a four- or five-year lead time which would be necessary to produce trained

workers to meet them. A current example is the major retooling in the auto industry directed at meeting new energy conservation standards. Major construction projects at Nanticoke and in Polysar are other examples. When these demands arise there is usually a cry for removal of restrictions on immigration for the necessary skilled workers. This, of course, is viewed with alarm at times when a large portion of our population is unemployed, particularly among the younger age groups. It would also remove a major incentive to promote vocational and trades training programs here. It may also be a doubtful efficiency, since emigration to Canada is no longer the rosy prospect it once was. It would help, of course, if we could develop a capability to predict labour market requirements four or five years hence. This has been the subject of much discussion in the Industrial Training Council, and also at the Skills for Jobs Conference in June. It is said to be possible, but the data-gathering process and the updating of world condition reports required would be very expensive and involve a small army of civil servants. The idea of launching new projects of such magnitude in a time of restraint in government spending is unlikely to be regarded with favour.

An obvious answer to this problem would be the provision of enough training to ensure a plentiful supply of skilled workers, on tap, so to speak, for any requirement that suddenly comes along. There are reasons, which I shall discuss next, why this is not done.

#### TRAINING FOR UNEMPLOYMENT

Restraints that have recently been applied in the education and health services fields in Ontario have brought into focus an issue in vocational training that has been simmering for a long time. Should the supply of workers be closely geared to the demands of the job marketplace? In the previous section I mentioned the case where a skill shortage is imminent. Here I should like to look at skill surpluses and how the training system should respond to them.

A year or more ago the government of Ontario tried, with varying degrees of success, to cut back the health care system in the province. Although the whole process became hopelessly entangled in local and provincial politics, the upshot has been a reduction in hospital and institutional care and a tight job market for health care practitioners, nurses, nurses' aides, therapists, and others. (A similar situation now prevails for teachers; the response of the teacher education system has been to cut intake drastically.) In the health care workers' situation, two opposing views appeared. One asserted that under tight job market conditions the training system should respond by cutting back drastically on course intake. Unless the job market is good, in this view, it is wrong to provide unlimited training opportunity. Graduates who were surplus to market requirements would have no choice but to seek unrelated employment or emigrate to places where the job market was stronger. Either alternative represents a waste of expensive training effort.

Another view took the position that any student is entitled to take training for a career of his or her choice, provided that entry qualifications can be met. It should not be the business of the school system to direct students away from their chosen vocations, and entry should not be restricted. Provided that the recruits understood fully that they were entering a career in which employment was tight, they should be allowed a free choice.

The issue surfaces in other areas. Craft unions and construction unions have many ways of controlling the number of apprentices who enter trades training. These include the application of apprentice/journeyman ratios, admission to closed-shop unions, the application of hiring hall procedures, and others. It is obviously in the interest of the worker to ensure that there is little or no surplus in his particular skill, because his bargaining position is stronger in a short supply situation. For this reason there is strong pressure on union negotiators to restrict entry to many trades. Union leaders will point to job shortages in the construction



industry and advise against bringing along more skilled workers for non-existent jobs, or "training for unemployment".

A contrary position is usually taken by employers. It is better to have a good supply of skilled workers on the market, so that the economy is able to respond to any sudden demands on it. A good supply of skilled labour is often a factor in attracting new industry into an area. If there is plenty of skilled help around, employers do not have to put up with workers who are deficient in skills and application. These views are of course eyed with some suspicion by labour leaders, who recognize that a surplus of skills is likely to depress the cash value of the skilled worker.

The issue is whether it is better to expend investment in training, even though there is no immediate prospect of demand for the skill, or to offer training only where an obvious market exists.

The protagonists in the issue are labour, employers, and educators. Those most affected, the potential trainees, are not often heard from.

It might be expected that market economics would prevail to resolve this issue. It would be assumed that people would not be anxious to enter training for a trade or vocation for which there is little demand. In practice there are many personal and emotional variables which lead people to pursue their chosen vocations and to hope.

#### CONTINUITY OF TRAINING

Any form of vocational training that involves an on-the-job component depends for its effectiveness on the progress of the trainee through a series of job assignments of increasing complexity, climaxing in full-scale competence to perform any requirement of the vocation. In times of expanding economy this works well because workers of all grades are at a premium. At other times, however, it works against the training process.

Apprentices and trainees, usually at the lower end of the seniority scale, are most vulnerable to layoff at times when industry must cut back. Much as union leaders deplore this vulnerability, almost all contracts provide for job protection based on seniority. The principle applies as well in non-union operations.

Many large concerns have long waiting lists for their apprenticeship programs which lead to skilled labour status. Many workers at a semiskilled or unskilled level will take pay cuts in order to enter apprenticeship programs because they can see substantial improvements in status down the road. If they are then dropped from the program because of a cutback, they may never go back but remain unskilled or semiskilled workers for the rest of their working lives.

Construction trades, which are very cyclical, respond violently to swings in the economy, and have a seasonal component, create a problem for apprentices. Since the apprentice must find a job before he can begin his program, and must continue to find work over the three or four years of the apprenticeship period, he is very vulnerable to changes in the level of business activity.

The layoffs at INCO last winter terminated apprenticeship for some 190 tradesmen. While some had enough seniority to continue in employment, they did not have enough to continue their apprentice training, which many of them had entered at considerable sacrifice. Union representatives campaigned actively on several fronts to maintain continuity of training for these workers, but, without success. As a side light to this issue a group of apprentices who were dropped from the electrician program are now instituting legal action against the company, charging breach of contract. If this case actually comes to court it could set precedents that would reverberate throughout the vocational training system in Canada.

In the INCO affair the possibility was advanced that the government might underwrite the cost of maintaining the apprentices in their programs, but costs were exorbitant, and

the precedent such action would have set was considered to be very wide ranging.

The initiatives now proposed by the Ministry for vocational training programs will address this issue of continuity. It is a serious matter, particularly in apprenticeable trades.

#### WOMEN IN THE WORK FORCE

During the period 1966-77, the female labour force grew at a rate of 5.2 per cent per annum, more than double the rate of growth of the male work force. By 1977 the proportion of women in the work force was 39.2 per cent, up from 32.6 per cent in 1966. At the same time women's attitudes toward careers have been changing. Jobs were at one time considered by most women to be short-term expedients, and the woman who pursued a lifetime career was an exception in a population of women whose lives centred on home and marriage. Since the sixties, however, an increasing number of women have, through inclination or necessity, sought and obtained full-time employment and believe strongly that traditional male and female job stereotypes can no longer be accepted.

The exclusion of women from many of the traditional male occupations was at one time a matter not only of tradition but also of physical capability. Much of the trade work in factories, construction sites, forest operations, and mines required a good deal of size and muscle, although no one has denied that the employment of women in these traditional male job preserves was a substantial factor during the first world war. After the war, women continued to be employed in light industries as well as in their traditional occupations. But, the depression of the thirties again relegated them to the household. Men had first call on such jobs as there were.

With the second world war the pendulum swung again, and this time it has shown much less tendency to swing back. A substantial portion of the growth in the workforce over the past twenty years has been a result of greater participation by

women, not only in the roles which they held traditionally but in others as well.

Many of the new vocations have not been in existence long enough to have a male-only or female-only tradition. There is no barrier to women who seek community college training in computer science or in electronic technology. At the same time, virtually all the physical barriers which excluded women from many trades and vocations have gone. The muscle and endurance once demanded in heavy industry is now provided by easily controlled machines. It has been amply demonstrated that women are physically quite capable of working in construction, production, and trades.

The issue stems from the fact that stereotyped images remain, according to spokeswomen who have brought these problems forward. Many attempts by women to obtain training for the traditionally male roles in the job market have been met with indifference or hostility. Employers, counsellors, and educators have all been reported as reluctant to entertain the idea of women in skilled trades or in other traditionally male jobs. Many women are now insisting on a right to enter a career that appeals to them. While sex discrimination is prohibited by law, and appeal boards are set up to enforce the law, it appears to be impossible to legislate away an image which is the product of centuries of socialization.

Whether or not a large number of women are actually seeking vocational training to qualify as tradespersons is of course open to doubt. The Ontario apprenticeship system graduated its first female plumber in 1976, and female bush workers are still rare enough to rate considerable newspaper attention. The question is whether these careers are accessible to those women who do happen to want them.

Remedies have been proposed for these problems: special training for apprenticeship counsellors, a special appeal board to deal with discrimination in training programs, and special counselling services. Many of these could be incorporated in the present establishment that services skilled trades training. The Industrial Training Council has recommended that this be done.



## CONCLUSIONS

These are the most important issues I see at present in vocational training. There are of course others which have specific application in local areas, and they are enormously important to those directly affected by them. I do not think, however, that they can be described as "major" in the sense that they affect a larger portion of the population or have a major impact on the economy.

Many of these problems have been with us for years but have been exacerbated recently by changes taking place in social attitudes and in the economic problems which the country is facing. It is said by some businessmen that vocational training policies cannot be set up on a rational basis until the government has articulated an economic policy for the country. For Ontario, at least, further delays in adapting vocational training systems to the realities of the present marketplace would be most unwise. This province continues to see itself as the manufacturing centre of Canada, and any assessment of its future economic well-being must assume a substantial manufacturing component.

As innovation piles upon innovation the pace of technological change is not likely to diminish. This creates special problems for the vocational training system. Not the least of these is the rapidly rising cost of training establishments, both in the public and in the private sectors. One of the greatest needs in the system now is adaptability - to meet the challenges of the revisions in social values, the pace of technological change, and the economic realities of the next ten years.

## DISCUSSION

G.L. REUBER Ladies and Gentlemen, I wish to say a word of introduction. Approximately a year ago we held a seminar on post-secondary training at universities. In that meeting it became clear that our discussion excluded one whole segment of post-secondary education; namely, skilled manpower training, and so we thought it would be helpful to bring together another group to talk about that subject. The general format for this seminar will be that the designated speakers and discussants will have their time as scheduled, and then it will be open to everybody to talk about the questions raised.

Our first speaker is Douglas Omand, chairman of the Industrial Training Council, which is part of the Ministry of Education, Colleges and Universities. His paper is intended to set out some of the major issues this province faces in what we might call vocational training.

D.N. OMAND Thank you very much Mr Chairman. My paper outlines a number of issues which have come to our attention in the course of the meetings of the Industrial Training Council. I have called them issues because they have appeared from various sources, from various people, from various parts of the province, and they seem to be areas in which solutions are necessary in short order.

It has often been said that until an industrial policy is established for Ontario and Canada it is premature to think in terms of an industrial training policy. My own view is that an industrial policy, even if it has not been articulated, nevertheless is apparent. When Ontario goes to great lengths to entice Ford to establish a plant in the province, obviously it is a very strong element of provincial policy that a major part of Ontario's economic activity should lie in manufacturing. I don't know, though, where they're going to find the people and staff such enterprises. At the same time there is an element of a national policy in such a decision. When Shell Oil starts on its tar sands extraction plant in Alberta, the people recruiting the construction workers and the skilled labour for that plant are going to be coming to Ontario looking for them and offering inducements that will be very difficult to turn down. Until we are able to develop a much more rapid and effective system of producing skilled workers, many of these objectives are not going to be met.

We're talking about vocational training. Many people think that means apprenticeship. Now, apprenticeship is a very important and effective method of vocational training, but it has a specific legal meaning confined to certain designated trades in Ontario. So we must think beyond it. What I would like to suggest is that the essential elements of an

apprenticeship program, that is, a judicious mix of a hands-on, on-the-job operation, together with a curriculum of closely related theoretical classroom training, will likely be our most effective way of developing the skills we are obviously going to need very soon. In the last year or two surveys and general public input have suddenly brought everyone to realize that a great deal of the skilled labour force in Ontario, particularly in certain trades, has come from outside the country, is aging, and is not being replaced. A man who runs a very successful machine tool business in Oakville recently told us that in about 1982 the last of his skilled tradesmen will be retiring, he has none coming on, and he will have no alternative but to shut up shop, which will throw out of work a lot of other people. Reports to both federal and provincial governments are now telling us that something like 73 per cent of the skilled workers in the metal machine trades are over forty-five years of age, that 87 per cent came to Canada from other countries, produced by other training systems, that the number of skilled workers under age thirty, presumably the next crop, amounts to only about 3 per cent of the work force. Such revelations have caused a certain amount of alarm. As a result the Ontario government recently convened a symposium on apprenticeship training which brought in experts from Europe and the United States who told us how they thought things should be going. And yet that symposium talked only about apprenticeship, in other words, about certain trades and certain processes.

The federal government recently announced a reordering of priorities, apparently to reduce public expenditure. But this new policy will have a violent effect upon the skilled training operation in Ontario, much of which is financed by the federal government, either through apprenticeship programs, through the purchase of places in community colleges, or through direct grants. What Ontario perceives as priorities are not necessarily seen that way by the federal government, and the federal government proceeds to apply its own priorities and spend its own money as it thinks appropriate. Ontario's priorities have to be adapted to them in almost a panic situation, which severely handicaps development of employer-sponsored training programs because they need a significant infusion of federal money.

Another issue is modular training, which seems to be the way to produce the most skilled people for the least effort in the shortest time. Modular training is looked upon by some of my colleagues on the Industrial Training Council with suspicion. They believe it may fragment trades and lock people into specific jobs, limiting their mobility and putting them at a disadvantage to the employer. Modular training, as originally conceived, involved the perception and development of a set of core skills common to a number of trades. My paper uses the example of mining, in which certain core skills are needed but can lead one on into various specialties. Modular training does not mean training Charlie Chaplin to turn two wrenches and do nothing else. Modular training has a long and interesting history. The germ of the idea may have originated during the Napoleonic wars when the British navy needed pulley blocks for the rigging of its ships. It had a fairly wide application

during the second world war when it was necessary to produce skilled tradesmen, mechanics, airframe mechanics, welders, and so on in very short order in a crisis. The niceties were abandoned then and people simply set about getting equipped as rapidly as possible to do a job. When we talk about crisis situations, however, I'm not sure that we haven't got one right now: a crisis may be what we're looking at.

The question of continuity of training has come very strongly before the Industrial Training Council on several occasions but principally recently with respect to the layoffs at INCO last fall. A whole group of workers were lifted out of apprenticeship programs and shifted back onto the general yard staff. Because of layoffs continuity has always been to me one of the major difficulties in an apprenticeship system in the technical sense, where there are definite requirements for definite periods of work in definite situations, and unless that work is available at the time the person attempting to fight his way through to journeyman status is simply out of luck. The effect of a recession on the person attempting to pursue an apprenticeship in a construction trade is devastating. He simply cannot find the work to allow him to move from one level of skill to the next, and very often he drops off the vine somewhere along the way. Apprentices understandably are usually at the lower end of the seniority scale, the most vulnerable to layoffs and cutbacks and seasonal changes in construction. When the Toronto City Council establishes zoning bylaws which limit construction - and construction people say this is often their effect - the apprentices are hit first. What the answer to this problem is I do not know. In a well-constituted employer-sponsored training system an employer might very well be subsidized or given some sort of incentive to maintain trainees on his payroll. Whether he can do that in the face of union agreements which clearly establish seniority and classify an apprentice, if he is producing, as a production worker I don't know. But I believe this matter will have to be given serious thought.

Another question is who should be responsible for skilled training. Is it the role of the secondary school system? The future may well find the secondary school system much more closely keyed to the post-secondary systems. It has been our impression that the secondary school system can be a very effective instrument in developing a skilled work force. Initiatives which emerged in Windsor have shown that it is possible within the jurisdiction of any given school board to make the necessary arrangements to move people into skilled trades and bring them into a credit position on apprenticeship at the time of their graduation. We learned with some surprise the other day that the three major technical schools in Toronto - Western, Central, and Danforth - in fact retained a series of compulsory courses when the credit system was put into effect. Within the credit system they packaged courses in such a way that the young people coming out had substantial technical training. But a great many high schools have simply put the whole credit system into a basket and invited everyone to pick his own. The upshot of this, we discovered for instance in a visit in Hamilton, is that kids often go into a forty-minute



machine shop period in which they spend twenty minutes setting up and twenty minutes clearing up. This is extremely inefficient use of some very expensive equipment. We are quite aware that graduating a technical student is much more expensive than graduating a student taking entirely academic courses. We are aware that teacher/pupil ratios must be much greater in shops than in what are virtually academic lectures. Every credit in a shop is subtracted from a credit in some other course, and a certain amount of internal struggle goes on, I'm sure, in the faculty room in that regard. Nevertheless we are equally aware that there is a substantial plant, a substantial body of skills, in technical secondary school teachers, and we hope they can be applied to solve some of these problems.

In January 1978 the Industrial Training Council, in a resolution to the minister, outlined what it believed to be the appropriate characteristics of an employer-sponsored training scheme. These guidelines, which might lead to new approaches to these problems, refer particularly to training in non-institutional environments. Here they are:

- The scheme should incorporate sufficient flexibility in quality and time to meet the requirements of both the employer and the employee.
- The criteria of qualification following various portions of the scheme should be based upon performance in each given section rather than on rigid time requirements. Qualifications obtained in the course of training should be recognized by the province, and suitable documentation should be provided so that the qualifications are portable.
- The training scheme should incorporate assurance that the trainee may, if he or she wishes, proceed to the completion of journeyman status or full productive qualification.
- Provision should be made for accessibility to public resources, by which it is intended to include the expertise available in the ministry and the endorsement on an official basis.
- No training method or system should be enshrined in legislation. (That may sound a little curious, but the training schedules in the apprenticeship systems, enshrined in regulations under the Adult Occupational Training Act, have been found exceedingly difficult to change because doing so means reviewing the entire system.)
- Provision should be made for prompt and timely response to demonstrated needs of users.
- Entry requirements should be flexible and appropriate to the training scheme and the subsequent job.

It is our belief that the application of these principles would, or could, lead to the development of a series of training systems having very broad application and attractive both to those doing the training and to those seeking it.

At this moment job training plans are on the books and readily available which incorporate the best features of institutional and on-the-job training packages. There are employees willing, able, and indeed anxious to put these into effect, and there are unemployed young people who need only minimal encouragement to get started. If the training process can be

freed from the restraints imposed by union-management concerns for tradition and above all by the bureaucratic and administrative processes which require that all training activities be hammered into the same financial mould, I believe that in a surprisingly short time we'd no longer be worried about skilled labour shortages. In times of crisis we are able to find the resources and talent for innovation which produced skilled aero engine mechanics or welders in months or weeks. If there is a central issue in this whole matter, it might be summed up in the question that I have often asked myself: can we free this system up?

G.L. REUBER I think that gets us off to a flying start. One of the curious things for a person who knows nothing about this subject is the sense that Europeans somehow manage to do this a lot better than we do. Is that really true? Does anybody know? The fact that we import technicians from abroad doesn't demonstrate the point.

D.N. OMAND We're talking now about apprenticeable trades. This training can be seen as an element of either social policy or economic policy. Where it becomes social policy, the incentives are diminished. When it's economic policy and has to be done then it happens.

W.D. McVIE The lower social status of skilled trades in Canada affects the attitudes of youth. There is a difference in the expectations of youngsters in Canada. The question is how we can, shall we say, entice the same type of student into the process and make it comparable to other kinds of training, because I think in Europe the apprenticeship system fits into the social pattern much more easily than it does in Canada.

Basically we've got to come up with something slightly different than the apprenticeship model, something a little bit faster, but without losing the very practical nature of the apprenticeship system. We've got to be sure, if somebody is really capable of doing a job fast and dirty but still as a tradesman with skill, that he gets that credit. And yet I don't think Canadians are as prepared to go through four years of apprenticeship as many of their European counterparts are. There's a basic difference in expectations. We can meet a crisis because those expectations are thrown aside and we do the job. But how can we translate that attitude onto a non-emergency basis? That's why I like the modular system, because it seems to me to give greater flexibility to the training process.

G.S. SWARTZ As to whether European systems really do much more than we do in Ontario, the answer is probably yes. At the company level, the French system operates like a training fund in the British system, and firms seem to have fewer problems of finding skilled labour than those in Ontario. Of course there is always a discrepancy between what companies say they really need and want and what actual shortages might exist. Everybody wants more skilled tradesmen, more skilled workers. The question is could they really use them if they had to pay the

market price? We don't know the answer to that question for all trades and for all regions in the province. But we can learn a lot from the European systems. I don't mean to talk negatively about what we have developed here in Ontario, but there are many dimensions to the systems of apprenticeship abroad that could be beneficially adopted here. We have historically been reluctant to utilize some of those innovations, and consequently we've paid the price by having from time to time to import large numbers of skilled tradesmen and, as just indicated, by developing a social attitude which tends to think less positively about the value of this kind of work. Now we are in the position of having to train more people, to develop these skills more forcefully, and yet we may not have as many people willing to go into them as we would like to see being trained.

D.N. OMAND I think there's one interesting element in the European system, and I'm talking now about the Dutch system, particularly that of Philips, a company that seems to have a very elaborate training setup. They start the apprentices much earlier. In Canada we put young people into apprenticeship after they have graduated from Grade 12, which usually means they're eighteen or nineteen years old. In a four-year program, by the time they become fully skilled employees, they're about twenty-three. An awful lot of them don't last that long. This is why I think getting training back into the secondary school level is of such significance, because if a young man has the expectation of becoming a fully skilled journeyman at, say, twenty, as he does in many of the European programs, the retention rates are going to be much higher. Often an apprentice can look at his pals who are driving trucks, moving earth, or something like that, making a lot more money and owning a longer car than he has; and by the time a person gets to be twenty-three his expectations are much higher than they were at eighteen.

L. TARSHIS There seems to be, in my judgment, some danger about training at a very early age, that is, specific training for a particular, sharply defined occupation. If an economist looks ahead five years, or even a generation, which is what the lifespan of the young people being trained will comprise, I don't know that he could judge what occupations and what kinds of skills the market is going to require. Is it better to provide this very narrow and specific training early or instead to delay it for a bit, so that the trainee can be trained more broadly and be less liable to becoming obsolete twenty years after he's finished?

R.B. McAUSLAND I think the answer to that is of course the training of what I guess is inward - skills with an open-ended continuous learning process available throughout whatever institutions exist. The difficulty I suspect may well be in terms of the employers themselves, and what they expect - how finished the product and how much they're willing to invest in it. One of the current issues related to this is the training of people within institutions to a certain level but the lack



of acknowledgment of that training on the part of the employer. Here is a brief example. At my college in Windsor, St Clair College, there was one particular industry which would not take our graduates. The teacher finally got the very best graduates of a tool and die technology referred to that company, but the student did not take the job. The boss came back and said "You're raising their expectations too high. He wouldn't work at minimum wage." They're still being offered, in some cases, the minimum wage after one or two years of college. And the question that concerns me is an ethical one: is it the role of our society to fill the reservoir of a labour pool such that those who are exploiting labour - and there are a few, not many, fortunately, but a few - should also have their needs satisfied?

G. MURTAGH With respect to Mr Swartz's comments on the efficacy of the European systems, broadly speaking I suppose I would agree with him. I wouldn't want to suggest of course, that everything the Europeans do is ideal, or that it's applicable in its simplest form to Canada. I think we have to make allowances. Yet broadly speaking they seem to have achieved a great deal. But more important is the question of a crisis in the skilled trades. A year and a half ago I would have said there was a crisis, but since then I've had to change my thinking to some degree, because now I'm not sure. For example in the Guelph-Hamilton-Toronto corridor, if I'm not mistaken, a recent study indicated that the average age was forty-seven and that 70 per cent had received their training in Europe. Now that does indicate a problem, but the bulk of these people have ten to fifteen years of productive work left. That would indicate to me that we have to start looking for a solution, but to rush pell-mell into a training program of any kind suggests that we're reacting rather than leading the way.

A.M. THOMAS With respect to Europe, I wouldn't disagree with most of what's been said except that very quickly one has to start distinguishing what part of Europe one is talking about. By and large, if you want to be free from regulation in the way that Doug Omand recommended or if you want some flexibility, then you'd be wise to steer clear of France, where the excess of regulation boggles even the Canadian imagination. I have seen some of the endless pages of French regulations that go along with paid educational leave - which you need in order to read the rulebook and understand what's going on! I wanted to raise a more fundamental point though. It seems to me that the incidence in Canada of skilled labour of a particular age and trained elsewhere is largely the result of what occurred between 1939 and 1945 and in the decade following. The schools of Europe, the trade schools, functioned throughout the war and produced a whole generation of skilled labourers in economies that could not employ them or make any use of them for four or five years. Those quite exceptional circumstances enabled us to postpone facing these problems ourselves. It's time we did, because large numbers of working adults in this population are barely at the level of functional literacy; these are not immigrants but native-born Canadians, and this figure keeps rising generation after generation after generation.



I'm assuming that we are not talking exclusively of young people. We might have been if we had engaged in this conversation twenty years ago. And we are not talking exclusively of initial entry into the workforce. We're talking about training; we're talking about the development of high-level skills; and we're talking about people of a variety of ages. We are willing to train at later ages than the Europeans. The Europeans who came had their way, and we banished anyone over twenty from any apprenticeship system. Our experience of the last couple of decades of the need for flexibility, of the need for people in mid-life to change skills and careers, suggests that we cannot have a simple bias in this conversation. Furthermore, in contrast to some of the advantages that are essentially cultural and economic of training younger people, we have a good deal of evidence that things are learned more quickly and more efficiently by older age groups. Training adults doesn't take as long as the conventional ways of producing skills in the young. Older people will learn faster and more efficiently. I'm perfectly committed to the notion of a changing role of the secondary school as long as the assumption doesn't go with it that it's only young people we're talking about, as long as we're talking about a variety of age groups.

D.M. WINCH In response to the idea of limiting schools to more general training and leaving the specialized until later: how far is it true that a person who does not acquire specialized skills is most unlikely to become obsolete? If a young man with a generalist education enters the labour force you can be sure that his skills would never henceforth be less than they are initially. But we all know what that means. Initially, he's unemployed, and that's how he stays.

In response to the parallel of the Philips experience in starting technical training at a somewhat younger age: we go through to Grade 12 with eighteen- or nineteen-year-olds to start, from which the inference was drawn that we should be getting more technical training back into the high school years. Could one, and should one, not draw the alternative inference that we should be getting young people out of high schools into technical training at a somewhat earlier age? You don't have to bring the training to the schools; you could take the children to the training.

W.D. McVIE You can't get a job as a sweeper without Grade 12. It doesn't matter what you learn. Just get that certificate, and then you'll get a job. Part of society's expectation.

R. ADAMS I think you're right. There are a lot of jobs around that you cannot qualify for unless you have a university degree. Does that make sense today? I realize this is somewhat simplistic, but with the baby boom after the war we started putting more and more people into educational institutions and insisting they stay there for so many years before they could qualify for anything as one way of keeping people out of a labour force that was overburdened. Maybe we should start to think the way we did years ago. Maybe it would be better to have people come out, get into the work situation,

begin to learn something about what work is all about, and have some sort of mechanism whereby, over a period of years, they could qualify for skilled and high-level jobs. The possibilities of a mechanism like that called educational leave are exciting. We used to train lawyers this way and doctors.

P. DAWSON One of the things that surprised many people in industry in Ontario at the symposium last September was the fact that many European countries are turning out apprenticeships in less than the traditional four years. Two and a half to three years seems to be a typical training time. If, as Doug Omand suggests, the Philips organization is doing a pretty good job in training, they're obviously turning out skilled people at eighteen or nineteen years of age. Maybe one of our problems is that time serving is legislated in Ontario.

Furthermore, I don't agree that slightly older people learn better. To me the European experience demonstrates the contrary if they're starting training at an earlier age and the duration of the training is lower than ours. I don't think the term journeyman is well understood in Canada. It really means journey-man, that is, someone who qualifies in a skilled training program and moves on when he finishes it. Companies in Europe for a long time have segregated normal training from the gaining of experience, so that as soon as your apprenticeship is finished you are terminated and go on your journey to pick up experience from other employers. Later you're certainly invited back into the organization. On the other hand we seem to feel that in the formal training program we have to give a combination of training and experience. I suggest that we should try to give highly structured training, maybe at an earlier age, but certainly accessible to older people who want to change their occupation, giving credit for what they've learned, and then build an experience component onto that training. Now many Canadian organizations, of course, because of the cost of training, would want that experience to begin with them, because they don't want to lose their investment. I think that can be done if they structure within their organization some experiences for the trainee that within a reasonable time after graduation from the formal training program will qualify them as "fully trained".

W.A. JONES It seems to me that Mr Tarshis and Mr Omand have struck at the heart of the problem. The question of early preparation, as opposed to general preparation for specific preparation later on, is a deep philosophical and social matter. Mr Omand's point about the three major technical schools in Toronto was a good one. The pressures on the school system over a number of years now have been escaped by those schools because such pressures have been coming from the sociological and philosophical area of the academic world. In Toronto, for instance, we've heard about the schools south of Bloor Street not providing the same kind of education as the schools north of Bloor Street. But the people involved have been talking about academic schooling as opposed to technical schooling. Just as those schools have maintained a tradition of having a fairly solid core, so that has been the case in many parts of

Ontario. But where the schools have been under a lot of pressure from sociologists in particular, they've tended to respond to it in a variety of ways which have brought them under some criticism now.

A. BELESSIOTIS The question is, are the existing wages good enough to attract people into non-university education? Are employers paying enough money for people to become tradesmen?

G.L. REUBER There's a real danger of unloading the cost of this on the public sector. Obviously employers and employees will want as many trained people as they can get at the lowest cost, so that to the extent that you improve the system it's never going to be adequate. It's always going to be deficient in the sense that they would want more trained people to do the job. What is the appropriate distribution of responsibility and cost? One way would be to do nothing, and presumably employers would make the necessary adjustments in how much they're going to invest in training and how much they're going to pay for skilled people. They would then import them rather than train them because it's cheaper. There is a real danger, unless this factor is somehow taken into account, that the public sector will simply get stuck with all these costs while the private sector, both employees and employers, directly receives the benefit.

D.N. OMAND I'm suggesting not that a greater load should be thrown on the public sector but that what is already in the public sector should be more effectively used. In other words, I can see situations in which a pretty substantial investment in plant is simply not being effectively used.

R. ADAMS For the last month or so I've been talking with a lot of employers and trade unions about education in industry. At one meeting the employer representative said "We're not into training; that's a government responsibility, and the government isn't providing us with enough skilled people." I think that attitude is fairly widespread, although there are a lot of companies in Canada which do an incredible amount of training. The Europeans have a much different general attitude. European industries in several countries, France, Germany, the low countries, Scandinavia, finding problems with training, have got out and done something about it themselves, through association. Employer-sponsored training as a new initiative makes a lot of sense, but if we're going to make progress in that area the attitudes of certain segments of industry are going to have to change.

G. MURTAGH There's no question that we can turn out trainees faster than we have done in the past. I suspect that's probably even true within the traditional skilled trades as well. The problem, though, is what are you training them for? In Toronto we can probably turn out more skilled trainees in apprenticeship, but for what? They can join the ranks of the 20 to 25 per cent of the skilled tradesmen now unemployed here. So what have you achieved? You've created a person with expectations



that you can't fulfil. And of course all sorts of frustration begin to build up there.

Indiscriminate training in a crisis atmosphere is not the answer. The question really is where is the Canadian economy going? Training must be related to an industrial strategy. To talk about manpower alone, in isolation, is a waste of time.

D.N. OMAND Has the Economic Council ever given any thought to the problem of trying to articulate and get some kind of approval for an industrial strategy?

G.L. REUBER We have, but I confess that I'm one of the sceptics about trying to predict the future. We are talking about the problems of manpower planning, alone, but to plan for the whole economy compounds those problems several times. We basically depend on the market to work out over time, development in one area or another. We have made some notable attempts to develop certain industries, but they usually ended up as aircraft we couldn't sell, computers that didn't go anywhere, and so on. The track record is pretty shaky historically, not just here but in every other country too.

G. MURTAGH Perhaps part of the problem is in becoming too specific, rather than trying to sketch in the broad outlines of what needs to be done in this country, the areas in which government should subsidize or aid or help and promote. The Europeans have tried some of this and seem to have had more success than we've had.

D.M. WINCH There must be something ironic about suggesting that we determine an appropriate government policy to achieve what other countries have achieved by avoiding government policies, which is what it boils down to. When you look at the experience of European countries, it has not been done as a matter of government policy, it's been done by industry. What has been attempted as a matter of government policy has often missed the point.

H. ST-ONGE The question we're facing today is fairly fundamental. It could be answered, I think, from the perspective either of the educator or of the economist. For the educator training is an integral part of our education system. Some people choose to go to university, others to be trained as skilled tradesmen. From an economist's perspective, government assistance is needed because training usually represents a public good, because somebody who receives training can offer it to any employer. It doesn't belong to the employer who has trained him. So the employer might be investing a lot of money in training to which he does not have a property right. Investment in training is then a very risky business. Why train somebody, investing \$30,000, only to lose it to a larger company that can offer better wages? This is where government assistance is needed, to provide the incentive necessary for training to take place.



H. NOBLE In Ontario, 92 per cent of the funds go into educating 9 per cent of the people. Now that is not equity. There are many arguments about who should pay for training. And I for one, even as a civil servant, question the amount of government funds that go into training, but I think underlying it all is the much more fundamental question of whose tax dollars go to educate whom.

J. POGLITSH Regardless of which employer might benefit from an employee's training, there's no getting around the fact that an individual who takes training or education of any kind benefits during his or her life. My second point concerns public expenditures. Public funds are not manna from heaven. More public expenditure ultimately has an impact on industry the same as the lack of skilled labour has an impact.

G. REUBER One of these papers suggests moving much of this training into the plants from the school system. Now that may mean that the school system itself moves, that you're running classes in the plant. I assume this would be a sort of subsidy to the firm, implicit if not explicit. Is that done at all in European countries or Japan?

D.B. ARCHER In Europe a trade is a status symbol. In Britain, for instance, if the father is a butcher the son is going to be a butcher. This is shown in the entries into the post-secondary schools. As a result there are completely different expectations. First of all, apprentices were indentured. They went to jail if they left the employer, and when they ceased to be indentured they were allowed to journey. That's the meaning of the word journeyman. As to the length of apprenticeship, we used to have seven years' apprenticeship; we've got it down to two, in some places three, but you're depriving management of cheap labour for that number of years. And if he's only going to get two years of cheap labour and then turn out a journeyman getting full wages, he's not as willing to do it as if he can get five or six years out of it. So I think comparing Canada to Great Britain is comparing apples and oranges. You've got a whole different set of circumstances. The social aspect of a class society is still very strong in Europe. There's not much expectation among working class people in Europe that their sons and daughters will enter university. A good skilled trade will be what a working class family would be hoping for for their children.

D. OMAND It's true there are many areas where the apprentice is the go-fer. But there are others where that's not so. An electrician in the Toronto area is good for \$17 an hour; his first-year apprentices are good for 40 per cent of that, which works out to somewhere around seven dollars an hour, and this for a young person just out of high school. This tends to discourage employers from plugging apprentices into the system because, although at one end of the scale they're cheap labour, at the other end they're far too expensive.

R.G. HILL We have to be very careful where we look for references in developing some of the programs. Ontario, from Cornwall to the Manitoba border, extends about 1500 miles. Now how many countries will be encompassed in 1500 miles in Europe? In the smaller countries in Europe the cities and major centres are a lot closer than they are in Ontario. As we've found under the modular training systems and other training plans, programs developed for Cornwall are not the ones needed in metropolitan Toronto or Hamilton or Windsor. And they certainly would not be meaningful in Kenora. Some of the major issues really are local. We should be preparing ourselves to take care of local concerns, whether in schools or in universities or community colleges. To look after youngsters in an area we should be developing programs in which they can fit into the system in that area. Their moving out of the area doesn't do the area any good.

L.F. GORDGE I've got a statement of government policy here that I thought the participants might be interested in. It's dated January 1965. On the issue of skill shortages, programs had been developed at that time to help industry fill the skill gap. There was further encouragement to economic growth. The emphasis was to be on industrial training. A major change in government policy at that time was embodied in plans to launch a comprehensive, employment-oriented industrial training program that would assist industry to develop its skill requirements on the job. On the question of counselling, it was proposed that specialized counselling services would be developed for apprentices and potential trainees. On the poor image of the blue collar worker, it was proposed that a campaign be mounted to enhance the status of the apprenticeship and industrial training programs in the eyes of the public generally and encourage more young people to prepare themselves for a useful career as skilled tradesmen or technicians.

Now labour market projections. An organization was set up to work in co-operation with other agencies to develop short- and long-term forecasts of changing manpower requirements, to examine labour market trends and skilled shortage projections. These were to be used to guide the development of new training programs and, it was hoped, avoid training in obsolete skills. Of particular interest, in light of the comments that have been made about modular training and its linkage with the secondary school system, assistance was to be given to local school boards in planning their programs to integrate into employment or into training. On modular training, it was determined that, where feasible, programs would be designed on a block build-up basis, so the trade elements could be learned as required and then augmented when technological or procedural changes require higher skill levels.

This is a fairly lengthy document, and, as Doug Omand said, most of these are not new issues. They've been around for a long time.

In 1965 Ontario had a very effective and dynamic industrial training program offered through two different ministries. In 1967 those activities were aborted completely by a piece of federal legislation. Perhaps the most productive

approach this conference could take is to look very closely at the federal-provincial roles and consider the fact that unilateral federal initiatives are completely pre-emptive of anything this council might recommend and have accepted by the provincial government.

P. DAWSON I would like to say a little bit about making employers more responsible for the training. Under present legislation on apprenticeship, of a typical four-year term for the apprentice, about twenty-two weeks, or roughly 11 per cent of the training, is funded by the province when the apprentice goes to trade school. The other 89 per cent is provided by the employer. We should look very carefully before we suggest putting any more of the remaining 11 per cent back on the employer. Training benefits society as a whole, and any apprentice registered in Ontario who gets an apprentice certificate and maybe a certificate of qualification has certainly got a portable skill. The employer's view that additional assistance may be needed should be given fair consideration. The figures show quite clearly that employers in Ontario absorb a substantial part of the cost of training.





## Employer-Sponsored Training:

### Basic Concepts

H. Noble

## WHY DOES ONTARIO NEED NEW INITIATIVES IN INDUSTRIAL TRAINING?

Existing programs were developed to meet different conditions

Following the second world war, major industrial changes occurred in Canada and particularly in Ontario. The province's contribution to the war effort developed a host of new industries with the capacity to retool and serve a new consumer society. Buoyant economic conditions brought by both international and national demand for industrial products reinforced the growth of manufacturing in Ontario.

Governments supported this manufacturing development in a number of ways, including the establishment of a number of vocational training programs and institutions. In Ontario, the support for vocational training reached a peak with the development of the colleges of applied arts and technology in the late 1960s. Located in all the major population centres of the province, the colleges absorbed the existing institutes of trades and added new programs emphasizing 'technological' or higher vocational training.

In addition, a number of other factors were influencing the course of occupational training in Ontario during the sixties. Ontario's universities, fuelled by high numbers and social expectations, experienced rocketing enrolments, while skilled trades training saw only modest growth. The Ontario social climate gave little respectability to the skilled tradesman. Yet an adequate supply of skilled labour was

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The contents of this paper are the result of the work of several individuals, including P. Dawson, L.F. Gordge, G. Murtagh, T. Zaharchuk, D.C. Ahrens, and W. Wyman.

maintained through a continuous flow of immigrants, particularly from Western Europe. With these various social and economic influences affecting vocational training and education in the province, neither the publicly supported nor the industrially based training systems had to satisfy the total demand for high level skills.

In the 1970s the changing balance of economic strength between Canada and Europe, together with alterations in immigration policy, reduced noticeably the numbers of skilled workers immigrating to Canada. As a result, Ontario is faced for the first time with the need to become self-sufficient in training highly skilled industrial manpower.

Too few highly skilled workers are being trained

Although the extent of the current demand for skilled workers has yet to be fully documented, there is some evidence, largely impressionistic, indicating serious shortages in these occupations despite relatively high unemployment. Since the problem appears to be most acute in the metal-cutting trades, these occupations will be used for illustrative purposes.

The Canadian Occupational Forecasting Program<sup>1</sup> (COFOR), sponsored by the federal government, predicted that between 1974 and 1982 there would be approximately 47,000 job openings in machining and related occupations. Of these, 19,000 openings were projected for metal machining alone. These data are confirmed by recent figures from the Ontario Ministry of Labour,<sup>2</sup> indicating that the number of job vacancies in machining and related occupations has doubled between 1976 and 1977 (from 770 to 1650).

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1 Canadian Occupational Forecasting Program; No. 7, Ontario Manpower and Immigration, 1976. Available from Supply and Services Canada, Catalogue No. MP 52-3/1975-7

2 Job Vacancies by Major Occupation and Industry Groups, Ontario and Six Canada Manpower Centre (C.M.C.) Management Regions, Fourth Quarter 1977. Research Branch, Ontario Ministry of Labour, June 1978 (Restricted)

A review of the data for registered apprentices in Ontario indicates that only 1900 students have completed training in the metal machining area in the past ten years and only 1700 apprentices are currently registered.

Not only does the present problem appear acute, but indications are that it will rapidly become more severe. Most of Ontario's present skilled workers immigrated fully trained a number of years ago, and are now in the latter part of their working careers. Of the 19,000 job openings in metal machining expected between 1974 and 1982, approximately 80 per cent were expected to be due to retirements, deaths, and career changes.

In addition to this general evidence from province-wide statistics, a number of studies have helped identify the specific nature of the problems in particular regions of the province. Two of these are as follows:

- Kent County.<sup>3</sup> A recent study of this county, in which the number of skilled workers in manufacturing has doubled in the past fifteen years, surveyed 766 companies. The study established an immediate need for three hundred skilled tradesmen with an additional requirement for 2700 by 1987.

- Toronto, Hamilton, Guelph.<sup>4</sup> A recent study of the occupational training of higher-level skilled workers in the industrial trades surveyed sixty-nine companies and unions. The survey showed that a skilled tradesman in this region is likely to be forty to fifty years old and to have immigrated from a foreign country where he learned his skills. The study concluded that there was a shortage of higher-level skilled workers at the present time, and it will be seriously

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3 The Status of Skilled Trades in Kent County, Ontario. J.G. O'Neill, J. Jackson, C. Merritt, and C. Stonefish, October 1977

4 Case Studies on Aspects of Training Upper Skilled Blue Collar Industrial Workers. Prepared for the Department of Manpower and Immigration, Ottawa, by Robertson, Nickerson, Group Associates Ltd, 1977 (Confidential)

aggravated as the economy begins to pick up. Of the 15,207 skilled workers surveyed, 73 per cent were immigrants. The age profile of these workers showed that 87 per cent were aged forty and over while only 2.6 per cent were under thirty-five.

While regional studies confirm the general nature of the problem, particularly in the metal cutting trades, they also identify other occupations in which there are shortages specific to the region. These shortages, while localized, are often as crippling to the local industrial community as the more widespread shortage of machinists. Yet such specific local shortages cannot be detected by means of province-wide labour market analyses. Nor can they be effectively resolved by a centralized program of industrial training.

The highly specialized nature of the skilled jobs in which the most critical shortages exist requires precise identification, diagnosis, and treatment of these shortages by those most familiar with the local industrial scene.

Training must be conducted by industry and supported by government

In Ontario the success of industrial training programs depends on the interface between industry and government. Programs must be designed to support industry by providing the skilled workers essential to the success of industry. Further, to have any economic value beyond specific job situations in specific firms, the program must endow the trainee with skills that may go beyond the training capacity or interest of any firms. On-the-job training processes often fall short in developing generic skills which make the worker employable in many different job settings.

Let us consider this dilemma through the perspective of both the employer and the trainee. On the one hand consider the position of the employer. As a rule, employers are willing to train workers to the extent that the investment is profitable in terms of productivity. If the on-the-job training focuses on specific skills, the employer has a better chance of



getting an adequate return on the training investment. If generic skills are emphasized, the employer may be investing in a human resource which is not profitable because of high portability.

On the other hand the trainee is interested in achieving a maximum amount of potential employment mobility and advancement through the development of personal skills. Yet this person is often unwilling or unable to invest personal resources (through lower wages) in return for on-the-job training. As a result there is often a conflict of interest between the employer and the trainee over the nature of the training.

This conflict represents one of the main dilemmas facing industrial training programs. In order to meet the needs of the private sector effectively, these programs should be carried out within that sector. Yet, if the training process is left entirely to employers, it is likely that our manpower resources will lack portability.

This dilemma can best be resolved through a new program which effectively combines the resources of the private and public sectors. Government should provide both financial and training support, while the employer should provide the relevant training opportunities. Where employers lack the capacity to provide all aspects of training, the government can foster complementary training activities among groups of employers. Skilled workers can contribute their expertise to the development of training programs.

In subsequent sections of this paper, the elements of a new program called Employer-Sponsored Training (EST) are described. Many of these elements are designed to ensure the co-operative application of public and private resources towards the development of better industrial training in Ontario.

#### WHAT WILL THE NEW INITIATIVE ACHIEVE?

More flexibility in industrial training

Employer-Sponsored Training is designed to develop more flexibility than do existing programs in at least four key

areas. First, we want more flexibility in the over-all management of the program. Because many of the Employer Sponsored Training projects are expected to be in the manufacturing sector, they will include occupations not regulated by the Apprenticeship and Tradesmen's Qualification Act. This will permit greater experimentation outside traditional apprenticeships.

Second, we want flexibility in training. Different firms must be permitted different approaches to training as long as they meet training objectives and province-wide standards.

Third, we want greater flexibility for the trainee. If the trainee is enterprising or has special aptitudes, he or she should be able to complete the program more rapidly. Appropriate portable credits will be awarded for full or partial completion of the program.

Fourth, we want to ensure that the trainee has the same opportunity to finish training as any post-secondary student. We want to eliminate the industrial trainee as a casualty of layoffs, plant shutdowns, or other 'economic interference' in training. An individual who chooses on-the-job industrial training should have the same opportunity to complete training as the individual who chooses the traditional institutional route.

#### Better use of private and public resources

Economists have employed the concept of the law of comparative advantage to describe the way resources should be allocated to achieve maximum productivity in economic circumstances. The principle simply states that we get the best results by allocating resources so that each productive entity is specializing in areas best suited to its natural capabilities. With Employer-Sponsored Training we hope to apply a variation of this law to make better use of private and public resources in industrial training.

Let us consider the "natural advantages" contained in different elements of the private and public resources

currently being used in industrial training. First, in industry we have a host of firms that depend on skilled workers, or human resources, as well as on capital and management. Real industrial processes are managed in industry. Real industrial training should take place there, to take advantage of on-the-job expertise and technology. Finally, more genuine commitment to develop the most appropriate and cost-effective training procedures would be ensured by tying financial assistance to the achievement of province-wide skill standards.

Second, the colleges of applied arts and technology, although only eleven years old, have developed a successful track record in providing vocational education. Although much of their emphasis is on traditional post-secondary programs, the colleges have played a major role in supporting the training needs of industry in Ontario. Yet, the community colleges are institutions, and there is a limit to the degree to which institutions can satisfy all industrial training needs. The major goal of the new program is to shift a larger portion of the training towards employers. But the colleges have developed significant training resources which can be effectively utilized in the new program.

Finally, there are a number of central government agencies at both the provincial and federal levels involved in providing a vehicle for funding manpower training programs. Some of them also offer central support resources in the form of curriculum development. We view central government agencies as having a comparative advantage in providing training support for both industry and the colleges.

#### Co-operation in the determination of priorities

Industrial training has suffered in the past because the agencies involved have not developed adequate mechanisms for reaching a common understanding of ends and means. Each of the agencies has a different impression of what the industrial training process should achieve.

We suspect that no new industrial training program will erase all criticism and create the ultimate community of interest between educational institutions, business, labour, and government. However, at the very least the new program should provide a vehicle for arriving at common resolutions to problems such as the number and type of skilled workers required in different regions of the province; the type of training program best suited to prepare the skilled workers in the appropriate areas; and the degree to which industry, educational institutions, and government should share the financial burdens associated with training these workers.

We believe that industrial training priorities can best be determined through a co-operative interface involving business, labour, educational institutions, and government at the local level. To this end Employer-Sponsored Training has been organized to ensure that the community plays a key role in setting priorities for training.

#### More skilled workers

Since the purpose of Employer-Sponsored Training is to increase the supply of skilled workers in occupations where there are shortages, the program must be designed to achieve the following objectives: to reduce the amount of time and resources required to train employees in particular skill areas; to encourage more employees and employers to participate in these programs; to improve the effectiveness of the programs so that more skills are acquired in a given application of training resources; and to support the process cost-effectively, from the standpoint of public and private resources expended.

#### More skilled workers with on-the-job experience

What is a skilled worker? There is a great difference between a person who "knows about" and another who is "demonstrably capable of doing" a job involving the application of skills. The emphasis in the new program will be on developing



skilled workers who are capable of doing. These are persons who can apply their knowledge because they have been exposed to the maximum number of appropriate on-the-job experiences.

To a large extent we believe that the emphasis on the employment setting is justified because on-the-job experience improves the effectiveness of training. We recognize that managing a training process involving a variety of on-the-job experiences will be difficult. For example, some trainees will have to be exposed to a critical mix of off-the-job and on-the-job training experiences to acquire the appropriate group of skills. The difficulties associated with such an approach will pay dividends in terms of the effectiveness of training.

#### Training highly skilled manpower - not job creation

Employer-Sponsored Training does not address itself to job creation but to training. The program could result in new jobs being created, but jobs created in this manner will be an indirect benefit of the training of highly skilled workers.

It is expected that the trainees for the new program will come from two main sources: first, individuals either skilled or semiskilled already in the work force who wish either to broaden or change their skills; second, recent high school graduates who are convinced that the best avenue for job satisfaction is a highly skilled trade.

#### THE FEATURES OF EMPLOYER-SPONSORED TRAINING

In the previous section the general objectives of the new program were outlined. In many respects Employer-Sponsored Training is similar to existing industrial programs. The emphasis on on-the-job training is a feature of both apprenticeship and other current in-industry programs. Government financial assistance for on-the-job training exists in our industrial training programs and the notion of community input in the development of training programs has been a characteristic of some industrial training. What will be different in

Employer-Sponsored Training is the emphasis placed on certain features.

### The Community Industrial Training Committees

For any community wishing to introduce Employer-Sponsored Training projects, committees will be established representing labour, management, local government, federal and provincial agencies, education, and others who can contribute to the program. The Ministry of Colleges and Universities, the Canada Employment and Immigration Commission, and the community colleges will be ready to give their active support. But it is the local committee that must evaluate the need for training and recommend the appropriate training approach.

The advisory functions of the Community Industrial Training Committees. The Community Industrial Training Committees (CITCs) are an important feature of the program and have the following objectives:

- to act as a community "listening post". If the membership is effective it can provide a coherent, vital source of information on skill shortages in the community. If the CITCs properly represent 'community opinion' they can provide the program with policy advice;
- to provide members of the local community with a means of communicating their opinions on industrial training. This involvement should increase the participants' desire to contribute resources;
- to develop a local forum for both labour and management to discuss the content and objectives of the new program. For example, a CIRC might decide that a major priority in the community is to upgrade skills for existing employees rather than start from scratch with new trainees.

Operational questions requiring local advice. While the CITCs will be helpful in providing local co-ordination and in promoting the program, their major function will be to provide effective advice on the design and direction of programs to meet specific local needs. The responses of the CITCs to some of the following questions will in large part determine their roles:

- What are the local skill shortages? This is a fundamental concern of the CITCs. One of the most pressing current problems is the inability of programs to assess and respond effectively to the unique needs of local communities.
- What kind of programs should be offered? When the need for a training program is established it will be the function of the CITC to propose a program suitable to the specific needs of the community. Many of the following questions will have to be considered: What training should be made available? What is the most appropriate division of training between institutional and on-the-job settings? What form of accreditation will be provided to the trainees? How will the trainees be selected?
- What will be the form and the level of financial assistance? The determination of the level of financial assistance to training firms is an important issue. There will be flexibility in the arrangements for financial assistance so that the level of funding can be partially determined by the CITCs.
- How is the trainee assured of completion? One of the sharpest criticisms of the traditional apprenticeship program is that many circumstances beyond the trainee's control can interrupt or end training. To a large extent the trainee has been left to his or her own resources to re-establish a broken or interrupted training program. The Community Industrial Training Committees can play a role here. If a sufficient proportion of the industrial community is represented on it, it may become the "training broker" in the community. As such it would be in a position to anticipate layoffs of trainees and attempt to redeploy them, with their training credits, into other participating firms.

### Limitations of the Community Industrial Training Committees

CITCs will for the most part play an advisory role. They will not be given executive powers but will be developed as vehicles for promoting interaction between the educational system and participating industries. As local committees, however, they will not arbitrate or negotiate an agreement between the educational system and a participating firm on a specific training program. Undoubtedly some CITCs may be much more successful than others. Their success will depend on factors such as: the tradition of community action between firms and labour in the jurisdiction; the existence of a relatively peaceful labour/management environment in the community, the quality of the relationship between the local community college and industries in the region, and the personal strength and commitment of the individuals participating on the CITCs. Little can be done to control these factors. The Employer-Sponsored Training must be designed so that it is not completely dependent on the existence of strong CITCs in all communities. Other options must be developed for continuing the program in those localities where strong CITCs do not evolve. These options will be considered and developed over the pilot stage of Employer-Sponsored Training.

### A self-paced learning approach

If the effectiveness of industrial training is to be improved by shifting the locus of training to the workplace, fully documented instructions and directions for training at the workplace are an essential element of the program. The training will be modular, structured around a generic "cluster of skills" based on province-wide standards for skills required to function at different levels of proficiency within the occupation, organized around discrete junctures in learning wherein each module is associated with a set of terminal objectives in terms of knowledge and required skills, based on flexible entry requirements so that a well-prepared "pretrained" employee may be able to commence with higher-level modules, organized on



self-paced learning principles, allowing some employees who possess better aptitudes for particular occupations to pass modules at accelerated rates, and wherever possible providing partial accreditation for trainees who pass through predetermined threshold levels of skill acquisition.

The Ministry of Colleges and Universities, in co-operation with business, labour, and community training resources, will develop the required training materials. They will include all relevant documentation and material to assist participating firms with the administration of the program. This co-operative approach will also be applied to the development of tests and examinations.

Properly designed, this training approach will expedite the program. It will improve the attractiveness of training for both the trainees and the participating firms. Rapid skill acquisition will be rewarded by a corresponding progression to occupational accreditation.

#### Training consultant service

On-the-job training also requires the availability of training consultation and support from government and the colleges. The manpower training expertise of the Ministry and the community colleges will be readily available to employers. Training consultants possessing both direct experience with in-industry training and a thorough knowledge of government and college resources will be available to help employers interpret details of Employer-Sponsored Training, diagnose training needs, design a custom training program, select and orient trainers, and select and refer trainees. A further function of the training consultants will be to arrange for supplementary training as needed to complement an employer's program.

#### Financial assistance

Financial support to employers will depend upon need and will be based on the demand for skilled workers, the cost of

training to the employer, the associated benefit to the employer, and available funds.

#### WHAT DOES EMPLOYER-SPONSORED TRAINING REQUIRE TO SUCCEED?

The previous sections have outlined a new initiative in industrial training which will stress local community recognition of training priorities, more extensive use of on-the-job training in existing facilities in Ontario industry, a higher priority given to the training of highly skilled labour in Ontario, and a more flexible approach to learning and accreditation. The key issues in the development of this program will be the testing and evaluation of the program through pilot projects and the interaction of five constituencies - management, labour, the colleges of applied arts and technology, the Ministry of Colleges and Universities, and the federal government.

#### The pilot projects

During the initial period of this program, (1 October 1978 to 31 March 1979) a number of pilot projects will be initiated. Each project will originate through Community Industrial Training Committees and be approved by the Ministry of Colleges and Universities and the federal government. They will be distributed across a wide geographic area and will be concentrated in the manufacturing sector. The operation of these pilot projects (up to a maximum of approximately fifteen) will help answer such questions as these: What is the best composition and what should be the terms of reference for the Community Industrial Training Committees? What percentage of the training can be done on the job? What are the appropriate levels and methods of funding? What accreditation procedures are most meaningful? What is the most effective role for the industrial training consultants?

## The interaction of the major constituents

If Employer-Sponsored Training is to be effective, the five major constituents have much to contribute.

### From the federal government: funding, support and co-operation.

The federal government will provide up to \$8 million for Employer-Sponsored Training in 1978-9. Since the announcement of the program they have worked in partnership with the province in the development and approval of pilot projects. To date this partnership has been able to avoid moulding new program initiatives generated under Employer-Sponsored Training into facsimiles of older training programs. It will be crucial to continue this approach because without it the program will atrophy.

From management: resources and commitment. For Employer-Sponsored Training to work, management must have a sincere interest in skills training; a readiness to devote resources to a training program, recognizing that the movement of trained people to and from their own plant may not be equitable, but that the training will contribute to the general good; an enthusiasm to participate in the program and to contribute to the work of the local training committee; and an integrity in the selection of people to be trainers, recognizing that the best trainers are often the most productive employees.

From organized labour: experience. For Employer-Sponsored Training to work, organized labour must contribute to the work of local committees in determining the needs of the skilled trades, contribute to the development of training programs, ensure that the skills of its membership are passed on to and enhanced by new members.

From the colleges: expertise. For Employer-Sponsored Training to work, the colleges must be ready to provide appropriate classroom and shop instruction, assist the Community Industrial

Training Committees, and co-operate with the Ministry in testing competence before and during training.

From the Ministry of Colleges and Universities: co-ordination and assistance to employers. For Employer-Sponsored Training to work, the Ministry must provide a training consultation service for employers; when called upon, advise communities interested in Employer-Sponsored Training; map out standard skill components for each occupational area where training is required; co-ordinate tests to determine entry levels and competencies; bring in the colleges and, where appropriate, private vocational schools, school boards, and others to participate in Employer-Sponsored Training.

#### CONCLUSION

At present, Ontario has a number of industrial training programs geared to provide job skills. With few exceptions, these programs are designed for high school graduates or for the unemployed. This orientation, together with changes in immigration, has left Ontario ill-equipped to handle the demand for highly skilled manpower.

Employer-Sponsored Training is the Ontario government's response to this problem and reflects its commitment to improving the provincial system of industrial training. Indeed, the plan will provide a focus both for increasing the status of skilled training and for meeting the emerging shortages of skilled tradesmen and tradeswomen in Ontario.



## DISCUSSION

### EMPLOYER-SPONSORED TRAINING: BASIC CONCEPTS

G. REUBER The topic for this session is Employer-Sponsored Training. Mr. Noble is the director of the Program Resources Branch of the Ministry of Colleges and Universities.

H. NOBLE As a participant observer in the training in Ontario I think the biggest problem is one of will. If we have the will to deal with the training problem instead of bureaucratizing or pigeonholing it, we'll be further ahead. My second point is that for Ontario to come to grips with training problems something has to be done about the federal-provincial agreements.

First of all, why is a new initiative needed? As I pointed out in my paper the programs we have now were developed to meet very different conditions, which included importing skills and highly skilled workers into Ontario from abroad. This has led to several practices. Employers prefer importing skills because they're cheaper but also because they know what they're getting. Secondly, Canadians have not accepted skilled training as an attractive vocation. In my short association with industrial training, I have detected a belief in Canada that Canadians or Ontario citizens don't really make very good tradesmen anyway, so why bother.

There is in Ontario an emphasis on training the unemployed for job-entry skill levels. This has meant a de-emphasis of programs of a length needed to train workers for highly skilled work. If you're trying for a fast turnaround in terms of ten or twenty weeks for a training program, you can't address the problems of high skill. I think there's been a conditioning of bureaucrats, of policy-makers and educators, to think in terms of training the unemployed rather than meeting the needs of industry. And so industry hasn't been very enthusiastic about government-supported industrial training programs.

There's also been an emphasis in Ontario on institutional training in education. We've got fourteen universities, one polytechnic, and twenty-two community colleges. And all thirty-seven of these institutions have been taught very well to pigeonhole or institutionalize their funding to the point that their dominant reaction is how they can fit that funding into their structure. A fine program called TIBI, Training in Business and Industry, started off as quite a revolutionary project in Ontario, and the return was something like ten- or twenty-fold for the \$3 million put into the whole program. There was a ten-fold return on training. That program has in many areas been institutionalized, stuffed into Continuing Education Departments in colleges and adapted to their protocols. Much of the spirit of the program has been diluted.

In short, educational and training dollars have very little flexibility in industrial training.

Another characteristic of training in Ontario is a lack of commitment by industry in Ontario to training highly skilled mobile workers. The pattern in industry in Ontario is quite naturally to train for the particular needs of a particular company. We've got an apprenticeship system dominated by the automotive and construction trades; out of thirty thousand apprentices, less than five thousand are in the industrial sector. Added to this is a growing inability to deal with local or regional shortages.

There is a dilemma between the employer and the trainee, the employee needing portability for his training experience and the employer not wanting to be poached or raided and wishing to keep the training specific to his needs. I suggest that the dilemma can be resolved by the government's providing financial and training support while the employer provides the relevant training opportunity.

If the funds that flow into Employer-Sponsored Training are seen as reallocated dollars, and not 'add on' dollars, there may be a spinoff effect here in some financing initiatives by industry. The money that goes into industrial training in Canada or Ontario from the private sector is colossal. I'm told that if you take the budget of the largest Ontario community college, which is about \$40 million - George Brown or Algonquin - there are training institutions operating within the private sector that rival these in expenditures.

I'd like now to review present major government-sponsored training programs. The Canada Manpower Training Program, or CMTP, has courses in academic upgrading and basic skills. English as a Second Language, from ten to fifty-two weeks. It provides unemployed people with basic job-entry skills. In 1978 in Ontario there will be \$63 million spent in this area and approximately 36,000 registered people in the program. There will probably be about just over 20,000 completions. For the last year that I have data, about 42 per cent of the people actually got jobs. So if you start off with nearly 40,000 people going through the program, you end up with around 9,000 getting jobs. These are Ontario figures. Another program is the Canada Manpower Industrial Training Program, or CMITP, which was originally developed in Ontario to provide incentives for short-term training in industry. In 1973 the federal government took it over to support on-the-job training for new industrial recruits. At present it uses up about \$25 million, has about 18,000 trainees in Ontario, and has about 13 to 14,000 completions. It has a fantastic return in that about 94 per cent of the people who complete end up with a job. In this program the federal government selects the trainee and subsidizes the employer for conducting the program. Basically it is an instrument for providing basic skills and improving the employment potential of the clients.

Both CMITP and CMTP, which involve the bulk of the federal expenditures in Ontario, provide for the development of relatively low skills. And there is evidence in Ontario of a growing surplus of manpower with low-level skills. Both of these programs link training to the unemployment, but perhaps

we should instead be looking at the problems of the client and of the industrial infrastructure. What are the economic needs in Ontario?

Next, and very briefly, apprenticeship. The largest proportion are in construction and automotive trades, as mentioned above, and the funding there is roughly \$13 million. Among those in the industrial sector there's less than a 50 per cent completion rate, though it is higher in automotive and construction trades.

Of these three programs, which consume most of the dollars, only the apprenticeship program contributes to the need for highly skilled workers, though in a very modest way. Furthermore, the apprenticeship program in Ontario has not been characterized by flexibility or innovation because of its slavish loyalty to time on the job and the provisions of the Apprenticeship and Tradesmen Qualification Act.

The new Ontario government program called Employer-Sponsored Training must be understood not only as an experimental program but also as a major mechanism for change in industrial training in Ontario, a method for testing new techniques and concepts. Besides, achieving certain objectives it will also show that many improvements can be made, such as more flexibility in training, better use of public and private funds, more co-operation, more skilled workers, and an emphasis on high-skilled training rather than on job creation.

First of all, flexibility in training. By nature and by tradition, the 1964 Apprenticeship and Tradesmen's Qualification Act is very detailed, very specific, probably pretty bureaucratic. In contrast the legislation that launched, monitored, and controlled the colleges of applied arts and technology allowed much more flexibility in the management of the training. For instance, program approval procedures provide for a tremendous amount of local initiative. New legislation could learn from these precedents.

Besides wanting to introduce modular training under the new program, we also hope for a spillover effect in the traditional apprenticeships in terms of portability. We want to allow for partial completion of a program. One of the problems in the present apprenticeship program is high dropout rate. There's a fairly high dropout rate in the community colleges too, but they have perhaps paid more attention to the concept of partial accreditation. We also want to look at advanced standing. One group I talked to didn't want anything changed, because they were convinced it took six years to train an apprentice. There is so much evidence now in education and training of differential learning rates that we cannot insist on the same amount of time for every man or woman who wants to take the program. There's a strong commitment in the Ministry that someone who doesn't go to a college or university should have the same opportunity to finish, that the industrial trainee should not be the only casualty, the only student who faces the closing of the doors. If we are going to ask for the kind of students who can get through tough, high-skilled training programs, I think we've got to offer them the same kind of opportunity to finish. We recognize that we're going to run



into a lot of difficulty in this, but it is a basic kind of equity.

Under Employer-Sponsored Training we hope to develop a vehicle for arriving at common solutions, particularly to such questions as the number of skilled tradesmen required in different regions and the types of training program best suited to each area. We want strong local accountability. The trickiest part of Employer-Sponsored Training is the Community Industrial Training Committee. I think it's the boldest part as well. Quebec has had these committees for a while. They are voluntary and advisory, and their strength will clearly come from personal commitment and group knowledge, not executive power. They are not going to be funded. They're going to depend on volunteer labour. And if they're going to work they will have to develop as legitimate local forums.

The committees will identify local skill shortages, decide what training could be offered and the form of accreditation needed in their areas, and consider the level of financial assistance. They will deal with such questions as whether to charge males and females a tuition fee, and what to call the program. The brokerage function of the committees will be particularly useful in operationally assuring the trainee of completion. For instance, in a town with ten firms participating in the program, if one of the firms could no longer afford the training the brokerage function would enable the committee to move the students or trainees to a more advantageous situation.

We want province-wide standards, but there is a tremendous dilemma there. How can you have both province-wide standards and a lot of flexibility? Above all, in the training system we want the learner to go as fast as individually possible.

The training consultant, I think, will start off a resource supplied by the Ministry of Colleges and Universities and will be particularly useful in accreditation and testing of the new trainees. This approach is something that the community colleges in Ontario have already experimented with fairly successfully. Not all faculty members in a community college are teachers. Some are what might be called community facilitators, who get out and work on developing non-college resources to provide all sorts of training. In this sense the training consultant could be a facilitator.

In financial assistance I think the important thing is the issue of equity. Someone who goes into industrial training rather than institutional training should have the same kind of resources available. The Ontario government and the federal government are going to have to reset their priorities; there are not going to be add-ons for this program. For instance, much of the \$63 million under the Canada Manpower Training Program goes for basic skill development from grades 1 through 12. If we start switching money out of academic upgrading and into high skills, think of the dislocation that will cause even in community colleges alone in terms of faculty and classroom space.

G.L. REUBER How much money are you talking about putting into EST?



H.NOBLE Let's consider what Employer-Sponsored Training requires to succeed. The key issues at the moment are two. The first is testing and evaluation of the pilot projects, and \$8 million is available for that. Second is the interaction of the five constituencies: management, labour, the community colleges, the Ministry, and the federal government. How threatening will the community colleges find the new program? How much opposition will there be from the devotees of traditional apprenticeship? How much scurrying around will there be to improve old programs rather than try the new ones? How much can a voluntary organization such as a Community Industrial Training Committee contribute to change? A current issue that is very important is whether trainees feel like guinea pigs. What are the guarantees? This is a pilot project; what will they have two years from now? Can they finish what was traditionally a five-year apprenticeship program in two years? A final question: will employers become so frustrated with the change in the new program that they'll simply return to the old programs? These are questions for the pilot project.

Now as far as the five major constituents are concerned, from the federal government, we're getting \$8 million as well as support and co-operation. The federal government has just announced their own program to address the problems of key skill shortages. The amount of funding will be \$20 million for the whole of the country, but we haven't seen the details yet.

From management, we need tremendous participation, a willingness to break old habits, and the training facilities of companies.

From organizations of labour, again we need participation in the local committees, a contribution to the development of training programs, and an open-mindedness on such issues as modular training.

From the community colleges, we clearly need their expertise, their assistance, and perhaps too their leadership in the local committees.

From the Ministry of Colleges and Universities we need co-ordination and leadership. The Ministry has done the groundwork on the Community Industrial Training Committees. We've co-ordinated much of the development of the training modules, and because we have the legal responsibility there we shall have to co-ordinate the accrediting process. But I feel that a great deal of leadership is going to have to be shown by the Ministry in developing this program.

In conclusion, Employer-Sponsored Training has been designed to deal with the problems in industrial training in Ontario in the late seventies and eighties. It's a program designed not only to meet specific objectives but also to act as an important mechanism for change in industrial training.

G.L. REUBER Thank you very much. Mr. Murtaqh is our designated discussant.

G. MURTAGH I have been involved with Employer-Sponsored Training as a member of the Industrial Training Council from the time it was first brought to the Council. However, although my name appears on the proposal I wouldn't want that to be

construed to suggest that I approve of the program in its entirety. But I do approve in principle of on-the-job training. It allows the time of training to be reduced, and therefore the consequent costs of training. If we choose carefully the areas where Employer-Sponsored Training is applied, that is, where there is the prospect of employment, there's a lot to be said for it on that ground alone. It's very difficult to get the costs of on-the-job versus institutional training, but I suspect that the institutional costs are probably somewhat higher, especially in view of the capital cost element, which is a little difficult to bring into the picture. Mr. McVie mentioned \$16 million simply in the way of equipment to bring high schools up to standard in the field of training in skilled areas. In addition there are twenty-two community colleges, and when we add the kinds of equipment they would need to do an effective job, the figures could be staggering.

Again in principle I strongly approve efforts to link training more closely to local labour market needs. That's probably one of the areas we've fallen down on in this country. As a result, we've often found ourselves having trained tradesmen at tremendous cost but facing serious gluts in the labour market. Several years ago that was the case with the training of nurses in Ontario; the state of Texas must be ecstatic at the thought that Ontario paid the educational costs of a number of those people. We have to plug into these local communities to be able to match the jobs with the persons available. In this connection it would help if the Employer-Sponsored Training program tried improving the mobility of trainees. For example a while ago there was a shortage of jobs in Sarnia for skilled tradesmen in construction and at the same time a serious unemployment problem within those trades in Toronto. The measuring of local needs by committees might enable us to match them up.

Most important, though, I welcome the interest of government in this field of training, one that has been relatively neglected by government in relation to the benefits it has to offer. It's been neglected, I think, largely because it was believed easier to import skilled tradesmen from overseas on the premise that it was cheaper. I've always had reservations about that, in view of the costs simply of bringing the potential skilled immigrant to Canada, the relocation factors, and so on. I'm pleased the Ministry has not rushed in with a grand scheme and loaded it on to the unsuspecting public. The very fact that it is a pilot scheme gives it merit, and we should concentrate on trying to learn from it.

What I am displeased about with regard to Employer-Sponsored Training is the question of funding. A number of employers are saying that we're in tough straits; we've got to do the training and let's get on with it. But if they have to do the training, how is it logical that the public purse should pay? Why don't they train for it? Why don't they arrange training plans with a great deal of flexibility in them, which will be able to react to labour market conditions? After all, it's the employers who tell us they are much more aware than the government is of what's needed in the labour market.

Logically, therefore, we should want to keep government out of the picture on that ground alone.

Secondly, if employers insist that the only responsibility that they have is to train to suit their own immediate needs, then the social or economic value of training, that is, the mobility it provides, is lost. As a citizen that is important to me because if a plant closes in one location the employee has to move to another, and I'm interested in making sure that his skills are broad enough to allow the minimum dislocation. What we're doing with Employer-Sponsored Training is simply subsidizing, and the history of subsidization in Ontario is not glorious. When training is virtually free of charge, it can frequently be wasted, because any employer can find a reason for training. The question is to target the training. I would suggest that if employers were to group together in agencies or on boards devoted to identifying their problems and reacting to them, the quality of the training would be better.

Another problem with the funding of Employer-Sponsored Training is that the Ministry never seemed to consider other alternatives. A digest of pertinent information on training methods used primarily in Europe was received. But there's no indication that the material was utilized. There is no sign that such things as levy-grant systems were examined, in spite of the fact that they have been used in other jurisdictions. I'm not suggesting for a moment that those systems are applicable in their simplest terms, or in their existing terms, absolutely Canada or Ontario, but they certainly would bear scrutiny. And so, on the Industrial Training Council there was a feeling among council members that they were being taken along a process of which the result had been decided in advance. Nothing was considered in the way of using taxation. Nothing was considered in the way of suggesting, for instance, that if employers agreed to form boards some tax monies could go into these boards to fund them.

As a member of the trade union movement, I am concerned about the registration of trainees, ensuring them of completion of training and that upon completion some record will be given to trainees, enabling them to transfer from one location to another, ensuring them employment suitable to the kinds of experience they have had. Even though there are indications in the plan that this will be done, given a period of constraint, this is the first thing that might disappear from such a training program.

Thirdly, I do have some concerns about the community committees, largely because of the size of communities and the differentiations in expertise in them. In one of the experimental communities, Hamilton, an agency called HITAC, the Hamilton Industrial Training and Advisory Committee, has a great deal of expertise available, and it's reasonable to expect that this group will be able to come up with viable projects, projects that will enhance the employability of people. However, there are communities across the province where the great search is for funding and nothing but funding. Often local whims and petty jealousies between communities interferes with viable training or viable anything. The danger is that training programs will stop being a way of solving problems.



Recently a community college wanted to initiate a program for registered nursing assistants. On the surface it sounded very good. However, the Ministry's own data showed that 40 to 50 per cent of persons who completed nursing assistance training that year had not been able to get employment. How could you rationalize such a training program? And yet the local community very much wanted it. It would have been cheaper to take those individuals who wanted the training to Toronto and pay their costs in the city.

I'm also concerned about labour's involvement in the training. To date I've seen the composition of one of the local committees, and there's only a token trade unionist on it. That is unacceptable simply from the point of view of equity; but it's also unacceptable if we remember that the people practising the skilled trade are the people who can tell us a great deal of what needs to be done, what should go into the curriculum. So I hope the Ministry would take steps to ensure equity in involvement.

Another concern I have is that an Employer-Sponsored Training program could develop rigidities. We complain about apprenticeship systems being rigid, but since training takes place on the job it's reasonable to expect that as the employment market improves the amount of training will improve, while as employment declines, there will be a contraction of training as well. The kind of rigidity that we've seen inhibiting apprenticeship could come to operate in EST.

Looking at it as an Industrial Training Council member, I think Ontario has to decide whether it's serious about being in the field of manpower training or is going to continue to ride piggyback on the federal government. We're told there's \$8 million available for the EST program. Is the \$8 million available as a lump sum to be employed in innovative training programs, or are we going to be faced with the same problem that confronted us in the earlier CMTP programs where each program had to be individually approved? If that's the case, we're not innovative, and in fact what the province is getting into is simply another Canada Manpower Industrial Training program. All of this may be part of something that's been going on between the Ontario government and the federal government for the past ten months. Howat Noble mentioned that the provincial government had recently announced it would establish its own EST program if desired. However, ten months ago the Ministry of Manpower approached the Ontario Federation of Labour for involvement in this particular area; the target area happened to be Malton, and not surprisingly some defence contracts appeared to be coming up. I wonder if we're not playing a jurisdictional game, so that the last consideration is the trainee himself and of course the consequences for industry in Ontario. If Ontario is serious it will allocate its own funding to this kind of program rather than relying on the generosity of the federal jurisdiction. It would seem to me that the federal jurisdiction would have misgivings about donating money or allowing reallocation of the monies from CMITP and CMTP to make a provincial program successful at the risk of hurting their own program.



G. REUBER Thank you. We've had an excellent paper and some excellent comments on it. The floor is now open for discussion.

N. MELTZ Mr. Noble mentioned that there was a growing skill shortage amid high unemployment. To take this one step further in terms of quantifying and identifying areas, to what extent is labour market analysis going to be used to identify problems? One solution is to train; another is to move skilled workers to where jobs might be available. These alternatives reflect imbalances between communities. Will EST include these types of precise analysis?

H. NOBLE Yes. To establish the provincial structure for Employer-Sponsored Training we did not hire any new people; we simply reallocated. We borrowed Don Ahrens on a permanent basis from the Industrial Training Branch and then moved some of my staff with specific skills into a sort of mini-branch or small organization. One of the divisions is Labour Market Information. It's very modest, and all we can do is hope.

To expand on that answer philosophically, the Ontario government's position on labour market information is a very interesting one to try to determine. The government has thrown resources into it. The question is whether labour market information has been particularly useful, and my economist friends are pretty cynical about it in 1978.

C. REUBER Let's suppose several committees decide to support training of welders, not because there's a big market for welders in their own communities but because they've heard that welders are in demand in Kingston and Toronto. Who puts the whole thing together?

H. NOBLE The mechanism in the pilot project process is very simple. The proposal approval procedure simply says that the Community Industrial Training Committee can get together, identify the training needs, cost them out, and submit a proposal. That's what the first four have done. My branch has enough information and enough appreciation of the whole provincial scene to decide whether say, there should be welder training in a certain area. The reason we have that kind of information is that we approve all training in the whole province, all industrial training and all post-secondary training, so we have a reasonable view of the situation.

D. AHRENS Let's say we've got six thousand unemployed welders in Ontario; therefore, Ottawa and Toronto decide we won't spend any money at all in Ontario training welders. Some time ago Port Weller Drydocks needed thirty welders because they had a new contract to build boats. So, because a rule had been made in Toronto or in Ottawa, with so many unemployed welders in the province we couldn't get any money for training. And as a result Port Weller Drydocks went over to Scotland and brought back twenty-five or thirty welders.

The information has always been in a great big mass, and if it didn't work out in the community, that was tough. I look

at it from the point of view of temperature. If the temperature in Ottawa is warm, that information is of no use to the guy in the Northwest Territories who steps out doors and freezes his toes. Now we take temperatures in ten, twenty, or thirty places in Canada to get information accurate enough to make decisions. That's what the local committees are all about. And if Ottawa says that we've got unemployed welders here but we need welders there, we want to have the flexibility to fill that need.

There are other problems with mobility. We once needed miners in Ontario very badly; and we had unemployed miners on the east coast. We brought them here, but within eight weeks 87 per cent of them had gone back. We needed construction workers in Sarnia; and in Toronto we had construction workers coming out of our ears. There was a regulation that if workers wanted to move from Toronto to Sarnia the company was willing to pay their transportation costs once a week and their room and board while they were in Sarnia. Now if the companies were going to do that for the people from Toronto, they also had to pay it to the local people. As a result the company couldn't afford it, so they went to Detroit and brought in the people. We can't just accept mobility or say we can teach it. We've got to train the people on the scene for the labour requirements in that particular area.

A. THOMAS Don, would you agree, though, that there's a difference between talking about mobility when somebody with a skill moves to take a job somewhere else and mobility when you move in order to get training that you can't get in your own area. It strikes me that those are slightly different situations.

The question is not unlike the decision we made when we created school boards. We created them to be community-responsive and then discovered that we had to equalize, because those communities didn't have equal resources in them. And in order to deal with the issue of equity we had to work out equalization systems across the province.

Now in terms of training isn't it possible that in some communities in fact there aren't going to be employers with resources to do certain kinds of training. So you only train within that community for the resources and demands that you have, and I guess this is the point when I worry about the Ministry's difficulty in trying to persuade people to move in order to take training rather than move to take a job, which I think is a somewhat different situation.

J. SWEENEY A central issue is this one of jurisdiction. Until we can come to some kind of consensus about who in fact is responsible, this thing is just going to continue as in the past, with the buck being passed from hand to hand. For example, I got the impression during the budget debates of the provincial government that if that \$8 million had not been forthcoming from the federal government, this program would not have been put into place at all. The second question is the difference in responsibilities between the various levels of governments for meeting the needs of the unemployed and the

needs of skilled manpower training. I would like to get some idea from around the table of what the feelings are. Can we ourselves come down reasonably clearly as to what the various levels of jurisdiction are? For example, why is it that the federal government feels the need to involve itself in so many of these areas? Is there a clear jurisdictional position for the provincial government with respect to adult education? I'm convinced that if we don't reach some consensus and find some way of conveying it, all these other things just aren't going to mean very much. We're just going to keep going around the circle five years from now.

H. NOBLE The local Industrial Training Committee was charged with exhausting all the possibilities of training. To some extent there would be a learning or a teaching experience there, but if the Industrial Training Committee in Kitchener needed welders, and welders were available in Cornwall, one of the instructions they would have would be to check through that process. That's about the best answer I can give you on equalization.

Mr. Sweeney asked whose money it is. As we all know, it's \$8 million. There's something less than \$1 million that the province is now about to contribute because there are certain areas federal funding just couldn't look after. There are certain leasing arrangements, there are certain functions within a community that we can throw seed money into to see how it goes, and the province is going to put money there. We'll never know the answer to that question about \$8 million. It's the way the province has funded industrial training, and so they concluded they could reallocate some money with the fed's blessing. As to the issue of piggybacking, Don and I have found the federal government terribly co-operative within their own rules. It still makes it more difficult to deliver the program because CMITP money and CMTF money has legislative strings attached to it no matter which way you play with it.

J. SWEENEY I wasn't particularly concerned as to where this \$8 million came from. The point I was simply making was that it was another example of one level of government having to intervene in what would appear to be the responsibility of a different jurisdiction and why was that necessary? This blurring seems to continue all the time. We can decide that we really don't care that the federal and provincial levels of jurisdiction become more and more blurred. But the difficulty of course is you never know where to go to when you've got a problem.

H. NOBLE I think there's clearly been a marriage of convenience in that funding. And I think a number of people in our Ministry were quite concerned about federal bureaucratic intrusion into training. I think our position is very simple: give us the money and the tax transfer and we'll do the training and that's the only relationship we want. Now when they appoint an assistant executive director and so on there are really massive federal intrusions into that area. There's no provincial money for training improvement or training research.



That comes out of another federal pot, which they've just cancelled, and we're in a bit of a bind now because they've just canned \$7 million worth of research funds across the country. So I guess the motives are bureaucratic rather than political. The intrusions seem to come that way. Maybe that's the way I see it.

G. MURTAGH A response to Mr Sweeney's comment about innovations. Let's look at it from the process of implementing EST. If we assume that the key to its success is the fact that it's innovative and therefore demands a great deal of flexibility it would seem to be axiomatic to say that many of the normal rules regarding the awarding or transfer of federal manpower money have to be waived in this instance. The question I ask is: are those rules going to be waived? If they are not, you're into the bind that has confronted CMTF ever since its inception. I have to deal on the one hand with the federal people to convince them I have something viable. Then on the other hand I have to persuade the province that the training I am trying to mount does not exist or is not available in the province. If it is, they will then insist I go through the existing educational systems in the province.

Now what happens is that you're bouncing from one meeting to the next and the time lapse is simply extended. I'm not suggesting that the civil service people on either side are trying to be difficult. It's the structure of the system; it's there, it's built in, and I have to live with that. The tragedy is that when you take that approach the problem you're trying to confront in the first instance may be long gone by the time you get to the point where you can do anything about it. This is especially true, I would think, in the area of industrial training, where the need to react very quickly is imperative.

H. NOBLE On the question of unemployment versus training, it's simply been convenient to intrude into training through unemployment because the federal government's stance is that their problem is unemployment, not training. This issue has to be clarified, because clearly we're moving away from unemployment into training, we're bound by their funding regulations. That distinction isn't quite as easy with them as it is with us.

J. WOOD One of our needs was for innovative and different responses to these situations, and since the federal money comes with so many ties on it, it really restricts that money. Rather than worry about equalization, I would worry about there having any effect at all, because the local committees are volunteerism again, and volunteerism on an issue of this nature seems to me totally inappropriate. But since the money does not finance the setting up of structures, the delivery of places, we will have no new structures. We are tied to money that is just buying places instead of innovation, and since we lack the structures within which to innovate at the moment, this money buys us nothing.



W.D. McVIE If I can speak as a member of the London Industrial Advisory Training Board rather than as a director of education, our concern with this problem was the lack of clarity between Employer-Sponsored Training and the regulations of regulated trades. There has been a lack of interest in updating regulated trades according to input from local committees. To me what's even more fundamental than who pays for it or anything else is what are we going to train them for and is that going to be practical?

An awful lot of what is laid on as training is wasted time. It isn't even required, and we're wasting the trainee's time and the trainer's time, and we're wasting money by not clarifying how we can update rapidly the requirements of the trade. How is Employer-Sponsored Training without a journeyman's rank going to compete with regulated trades which turn out a journeyman? The question is: do you want a certificate when you're finished that says you're a journeyman? And every employer said absolutely, because every employee wants that paper. And yet there seems to be confusion as to whether this model gives the trainee any security beyond a local jurisdiction.

H. NOBLE What is designed into this program is province-wide accreditation. In 1967 when the community colleges got off the ground there was a tremendous debate over what their piece of paper would be worth. It's worth quite a lot on the market. It's worth a hell of a lot more than a BA in the 1977 or 1978 marketplace. I think that's the closest parallel I can draw. It's not going to lead to a journeyman's papers. It will lead to an equal kind of accreditation, but not to the same. If a local group simply wants their in-house small "a" apprenticeship program to become a province-wide large "A" apprenticeship program, that's okay too. In the end what you're talking about is what skills a certain training program provides an employer; and that's based on reputation and supported by accreditation. We're going to have to go through the same process that the community colleges did.

W.D. McVIE One other consideration. The union contract calls for a wage for a journeyman. It doesn't call necessarily for a wage for a diploma or a certificate that is not considered equivalent. If the province has laid down a certain certification, there is a tendency for that to be in contracts. That's part of the problem that the local associations face.

D. OMAND Are the funds to be restricted to a program that can last only fifty-two weeks?

H. NOBLE No. A program in Hamilton is three years long. It may not be three times fifty-two weeks, but there are two semesters in a college and four semesters on the job, and we are funding it under CMIT. We bent that rule. This is one of the really difficult problems Don and I have to deal with. We're continually bending rules. We spend time bending rules that might better be spent dealing with issues.

D. OMAND And you must be very vulnerable to someone coming along and saying here you can't bend that rule any more.

H. NOBLE Yes.

D. WINCH Mr. Noble, I'm a little worried about this hiatus of federal-provincial responsibility and your response that the appropriate attitude for the Ontario government is to ask the federal government to give us the money via tax transfer and leave us to do the training and everybody will know where it is. Why does a provincial government need a tax transfer to shoulder its responsibilities when both levels of government have sovereign taxing power? Given the fact that in any case all the taxes are spent, what this really boils down to is if Ottawa will put the bill on its deficit rather than on Ontario's deficit, Ontario will shoulder its responsibility. Now what is the need for the deficit to be in Ottawa if Ontario is going to do its job?

H. NOBLE Tradition. (laughter)

In terms of federal-provincial approaches to training there has been a consistent position taken on this.

D. WINCH I wasn't wondering whether it was consistent, I was wondering whether it was defensible. (laughter)

H. NOBLE An unfair question.

L.F. GORDGE The province is confined to a very narrow pedagogical role in supporting the federal initiatives. It's that simple. The priorities, the areas in which the training is to be directed, the selection of trainees, all are controlled by the federal government. So the province is essentially reactive in this field and has been since 1967. The Adult Occupational Training Act was introduced unilaterally and without any consultation at all with the province, and is intended from my perspective to serve as a set of income maintenance measures as much as a training program.

The recent initiatives have been introduced quite unilaterally again with no consultation, although there is provision built into the Adult Occupational Training Act for consultation. It just never happens. Even within the federal government there is no consultation, because in 1971 they introduced another initiative called Training on the Job which is very similar to this recent initiative and provided for substantial subsidies to employers who were prepared to employ people with the hope that the economy would improve and eventually they would remain employed. It was reasonably successful because the economy picked up at about the time the program terminated, and they can point to some really substantial placement results.

There's no use pretending that there's any sort of provincial control on the industrial training activities of this province. The question Doug McVie raised about the confusion between regulations and Employer-Sponsored Training results again in part from the fact that the federal government is

calling the shots. An agreement has been reached by an association of employers in that particular area, the precision metalworking industry, that provides for very substantial financial inducements for trainees that go into apprenticeship programs. Now that is certainly not in keeping with the provincial philosophy. We have developed an apprenticeship program that is eminently suitable for a small sector of the manufacturing industry.

The apprenticeship program which has been bandied about loosely here today is just not appropriate nor effective for training in the manufacturing sector where each of the companies has its own individual labour market. This has been abundantly clear to us since 1968. So there's very little purpose in trying to foist on industry a program that is not reconcilable with their needs or their organization.

It was mentioned, rather disapprovingly, that there are fewer than five thousand apprentices in the manufacturing sector. I'm not sure that's bad. Because other than for a narrow band of maintenance tradesmen, the work force is not organized in that fashion. At every discussion we have on apprenticeship and skills training, people use terms like highly skilled, journeyman, apprenticeship and speak very disapprovingly of the rigidities of apprenticeship. What you have to recognize is that apprenticeship is a lot more than a training system. It is both a training system and, in a labour market context, a device to regulate employment standards. It regulates rates of pay, length of training time, and intake. I can assure you from my contact with the proponents of the apprenticeship program that they are not prepared to have academic, education-training dilettantes dabble with that program. So you might as well reconcile yourselves to it.

The federal government, as some of you know, has gone a step farther than the province in presenting a formal statement of manpower policy. They talk about it in terms of growth, equity, stabilization. There never has been a provincial policy articulated other than through a number of rhetorical statements made by the premier. Would someone like to talk about the Council's work in this direction?

D. OMAND When we got into this we realized that we needed a great deal more information, and right now we're doing a research study. What we're after is a summary of barriers to employer training. It is our intention as soon as we can put it together to present through the minister to the cabinet a statement of a manpower training policy for Ontario.

R. GIROUX All the commercial and technology graduates are competing for the same jobs. Basically, the college dollars all compete for job entry. All the dollars are allocated to job entry and only an innovative program like Employer-Sponsored Training will address itself to high-level programs and apprenticeship. The problem of jurisdiction has brought us into this conflict where all the dollars are focused at the bottom.

P. DAWSON About the funding of the new project, one of the difficulties they're probably going to run into among a lot of



manufacturers is the question of the federal government's involvement. Many shy away from any kind of program that involves the federal government.

A.M. THOMAS About leadership being provided by the parties to the community committees, I have a good deal of respect for voluntary activity. I think as a change in structure it's a manageable and exciting one. I think the word "bold" is a proper one to use. My one question is would the Ministry be prepared in the first two years, as well as providing instruction consultants, to provide some consultative help as to how these voluntary councils can perform voluntarily? I'm not sure that kind of help can be provided by a Ministry official. I have a feeling it has to be provided independently of the Ministry, because the Ministry, after all, is one of the participants.

D.C. AHRENS There are an awful lot of talented people in the community. We've got an awful lot more talent in the community than we could ever have in one consultant. It's a real educational experience for me. The communities have the skills; all we have to do is create the channels. I think that the school boards, now they are paying salaries to individuals, have lost an awful lot. I think that at one time people got on school boards because they were interested in changing the system or putting input in. I think there are now an awful lot of people getting on school boards because it's a nice way of picking up vacation money or whatever it may be.

J. SWEENEY With respect to manpower policy and mobility, I'm wondering if either of these can be met unless there's also an industrial policy or strategy. I don't see how one can go without the other. To what extent is there any attempt in this program to feed into or to draw from either a federal or a provincial industrial strategy? I'm not aware of either one of them existing. And yet we're going to have to make some kind of forecast as to manpower needs. We're operating in a vacuum. What are we basing our decisions on?

D.N. OMAND As I said earlier, when Ontario puts a fair amount of money in the pot to persuade Ford to put in an engine plant here, in effect they're making some sort of comment on industrial strategy. I don't know whether I'm extrapolating beyond reasonable limits, but until there is some sort of articulation, you just have to get the signals from the outside and speak and interpret them as best you can.

G. MURTAGH The whole question of who should do the funding will have to be met head on. I suppose we can rationalize this as a pilot project, and say it warrants being handled in this manner. But we've avoided the issue of whether the funding for training should come from industry, or government, or a combination of both. All of these exist in one way or another in different jurisdictions.



G.L. REUBER I can't profess to be an expert on the BNA Act, but I used to work under the impression that education was a provincial responsibility exclusively. Training, I guess, is in a kind of middle ground. But if you're talking about a program that essentially is not designed to deal with unemployment per se but is concerned with upgrading skills to make labour more productive, there really is no jurisdictional problem. It's quite clear that this does come exclusively within the provincial jurisdiction.

G.S. SWARTZ Sorry, there is a jurisdictional question there. Basically, the federal government got into the manpower policy area with the passage of AOTA, without prior consultation, as was mentioned earlier. It had funds in the mid-1960s which it started to use initially not so much in manpower training as in building community colleges. That vast building program, entered into across this country, was constrained by certain legislated agreements. When it ran out, they still controlled the funds but did not want to admit that they were to all intents and purposes in education. The federal government, since 1963 when they began to develop the rationale for what then was broken off from the Department of Labour and turned into the Department of Manpower and Immigration, has consistently argued that because they had the responsibility for unemployment and employment, for immigration, for information responsibility in a labour market sense, for rationalizing labour markets, and for improving the matching process, they had the further responsibility of establishing training programs. The early history of training programs and the early research and evaluations showed clearly that we had tremendous, very positive rates of return in cost-benefit analysis to the training. So everybody was very happy, and nobody complained about the federal intrusion in provincial jurisdictions. In retrospect, the rates of return, the great benefit-to-cost ratios, weren't so much a matter of intelligent federal planning as a result of the fact that the economy was booming. People got jobs. It didn't matter what training they took. We had job shortages in this country. But by associating employment experience direct to the training people received, they came up with some fancy benefit-to-cost ratios. The provincial government now has to negotiate with the federal government what kind of training we should provide, and the federal government retains the right to veto our request because they're putting up the money. The feeling amongst provincial officials is that we could much better integrate the training program that comes under CMTP and CMTIP and all the rest of the manpower programs, with our educational programs, both at the secondary and post-secondary levels, if we had the responsibility and the resources. There's nothing to stop us from entering these kinds of initiatives ourselves, other than the fact that if we start paying for it as a province we'll have to take that money from something else. I don't think we have the option, as someone indicated before, of increasing the provincial deficit. So we are struck with a questionable jurisdictional relationship.

As to the question of an industrial strategy, it's very difficult to do that kind of forecasting. The Ontario Manpower Co-ordinating Committee and the Ministry of Labour through the Research Branch are responsible for labour market forecasting for the province, and we're trying to set up information which indicates what these kinds of aggregate needs will be. But right now we're not even attempting to do long-run needs; We're simply trying to make fair aggregate assessments of the needs over the short and medium term. We are trying to ensure that in cases where local labour market information indicates certain skills are needed the process of aggregation doesn't imply that that would be a misallocation of labour. Nonetheless, in local labour markets these kinds of misallocations of labour will continue to occur until we improve labour mobility. The situation in Sarnia is well-known to Ministry of Labour, and there really isn't much we can do about it. It's an institutional process. We'll have those kinds of aberrations in labour markets in Canada probably for a long time.

P. DAWSON I am concerned about the inequity of the distribution of the federal tax dollars when it comes to training. As the largest province we obviously put the most into the federal pot, but in terms of training dollars per capita, in the Atlantic region they get back about \$86, in Quebec it's somewhere between \$50 and \$60, and in Ontario between \$30 and \$35. We are putting the most in and getting about a third of what, say, the Atlantic region is taking out. The federal government seems to be preoccupied with income maintenance, or income subsidy, rather than the use of those funds for truly training purposes.

G.L. REUBER Why has the service sector been totally ignored in this? After all, that's going to be the big growth sector, and manufacturing generally has about 20 per cent of the Canadian labour force, probably more in Ontario. The service sector is a very large piece of the action and probably the part of the market that's going to grow more in the next five or ten years than manufacturing.

J. WOOD A large percentage of the population in the service industry is women, and women have not had an equitable distribution of the skill training dollars.

H. NOBLE The logic was that the industrial sector was the one targeted, and if it worked there, they would spread it into the service sector.

G.L. REUBER Well, if you're talking about training people, the service sector's now larger than the manufacturing sector, and is rapidly growing, and more varied. But I guess you have to start someplace, and this is a squeaky wheel at the moment.

## Evening Session : Educational Leave

R. Adams

G.L. REUBER Tonight's session is concerned with educational leave, and the speaker is Roy Adams, chairman of the Industrial Inquiry Commission on Educational Leave and Productivity.

R. ADAMS When I was asked to do a commission on educational leave, because I really didn't know much about it I came very close to saying no. But I did a bit of reading and found that what had at first appeared to be a rather peripheral subject, somewhat esoteric, turned out to be quite a big one, or at least part of a big idea whose time is, I believe, rapidly arriving. Not long ago UNESCO commissioned a world-wide study of education, and one of the conclusions was that our current systems of education, which tend to concentrate on educating people in their youth and allowing them to spend their maturity primarily at work, were no longer adequate for the times. Things are changing too rapidly, not only technology but also societies and economies, and if people are going to be able to function adequately a new, more flexible relationship between work and education will have to be established. In the wake of this discussion, not only around the UNESCO report but also around the whole debate leading up to it, a number of books, articles, and monographs have been published on the related issues of recurrent education, life-long learning, and educational leave. Educational leave is seen primarily as the vehicle for making recurrent or life-long learning a reality, a possibility. In 1974, after some ten years of debate, the International Labour Organization in Geneva passed a recommendation urging all member countries of the ILO to develop a policy on paid educational leave. During the 1970s several European countries have passed legislation around this concept.

To give you some idea of the background of our commission, we've been set up under the Canada Labour Code by the minister of labour with cabinet approval. We're a three-man commission: I'm in the Faculty of Business at McMaster University; there's a union representative from Quebec by the name of Claude Ducharme who's with the United Auto Workers; and the third member is Pat Draper, who recently retired as vice-president of industrial relations with Canron Limited. We've been asked to look at the development of educational leave and the current practice of leave, both abroad and as it currently exists in Canada. We will make recommendations about the federal initiatives to spread the idea of educational leave. We have until 30 June 1979 to do this. It's not nearly enough time, but we're going to see what we can come up with. We'll begin holding hearings across the country around November and have sent out invitations to present briefs to something like a thousand different individuals and organizations.



I felt very uncomfortable this afternoon amidst the discussion of federal-provincial responsibilities because I am typically seen as a representative of the federal government. Although we were set up under the Canada Labour Code by the minister, we consider ourselves to be entirely independent. Our recommendations will go to the federal level, but we are not following any preconceived federal government notions about where this whole idea should go.

We are sitting on what appears to be a volcano of intellectual ferment. I don't think we could stop the explosion no matter what we did. Let me give you a few reasons why. In 1976 the Canadian Labour Congress basically adopted the ILO resolution, actually going somewhat further. And since that time several trade unions have begun to negotiate paid educational leave clauses in collective agreements. The emphasis to this point has been on clauses for trade union training, but I expect that in the future they will broaden out the demands for all sorts of training and education. In at least one province, New Brunswick, a bill has been introduced to the legislature which would require employers to grant educational leave to their employees for a series of specified reasons. That bill was dropped quickly, but I understand it may be reintroduced. The real question is not will we have it - actually we already do: the question is not will it expand - I have no doubt that it will; the question is will we shape a policy in Canada that makes sense for Canadian needs and conditions? I have been surprised by the reactions of various interested parties. The Canadian Labour Congress argues that educational leave should be a basic right of all Canadians. By and large the business community is very sceptical, fearful of the issue and our existence. I say by and large because the reaction is by no means uniform. Many businessmen we've talked to are genuinely excited by the issue and the potential for it. Others are very sceptical because they believe it's the government's ultimate purpose to justify the imposition of new cost burdens on industry. I don't know what the thinking is in Ottawa, because in order to maintain the independence I talked about I have avoided discussing this issue substantively with either the minister or any of the senior bureaucrats in Ottawa. There are some that feel that our very existence is an insult. One official in an industry said our commission is "irrelevant, unnecessary, and a frivolous use of tax dollars." The reaction of educators is also a wonder to behold. Certain parts of the educational community, those in adult education and continuing education, have paid attention to the issue and its potential for Canada, but the mainstream has largely been caught off-guard. They've been spending so much time bemoaning the inevitability of declining enrolment that they've not thought of educational leave as a vehicle for filling their classrooms.

Although there's been no lack of strong opinion about educational leave, there's certainly a lack of knowledge. Most of the people we talked to simply didn't know what we're talking about. So let me try to define the concept for you. We're basically following the ILO definition, a very broad one, which defines educational leave as any time off during regular working hours taken by an employee to participate in an



educational program. By this definition a good deal of educational leave currently exists in Canada. It's really a new conceptual focus, not a new practice. For example, sabbatical leaves have been part of university life for many decades. And in some industrial firms now executives are taking sabbatical leaves. Large companies have routinely sent their professional technical and managerial employees off to seminars and other training programs. That by definition is educational leave. Professional societies for doctors, lawyers, engineers, and accountants, have been involved in the continuing education of their members for many decades, and educational leave has been one of the prime vehicles for enabling those professionals to go to the courses which are available. Within apprenticeship schemes there is generally a component whereby apprentices spend time in classrooms. That by definition is educational leave. So it's not something new that we're talking about.

The question is does what we have now make sense? Are there new ways this thing might be used? Is there some room for a federal initiative? One of the most creative programs we've run into to date is the petroleum industry training service in Alberta. This organization was created by the firms in the industry to monitor training needs, to develop specific programs to meet those needs, and to negotiate packages with technical schools to deliver programs. Once this is done the firms send their employees off to the specific training. The cost of the whole scheme is underwritten by the federal government under the industrial training program, the CMITP. Although that program may have been developed to meet an employment or generation need, it's possible now for firms to send their current employees off to training programs and have the cost of that education underwritten as well as a percentage of the cost of salaries. So the federal government is already funding educational leave.

I think the idea of community-based training, where a local organization would identify training needs and that training would be subsidized to some extent, is an extension of the idea in Alberta.

We have to look at some of the options for federal initiatives. One of them would be to make money available, whether through an expansion of the CMITP or some other way; that's probably the easiest way to get into it. Another possibility would be for the federal government to stay within their own jurisdiction as far as the labour force goes and to amend the Canada Labour Code. They could do that in a number of different ways. One possibility is that everyone within the federal sector be given a certain number of days a year to be used for educational leave, let's say one week. That would be a very controversial way of handling it, but it's one possibility. Another possibility would be to follow the model of this, similar to the New Brunswick legislation, and simply legislate a right, whereby employers could not unreasonably forbid their employees to go on educational leave. Another possibility would be to follow the Belgian example and pass a law saying that if people take courses at night they are eligible for compensating time off during the day. You can imagine what some of the reaction has been to that, but in fact we're

beginning to turn up cases in Canada where this is being done already, primarily for supervisory personnel and within the government sector.

There would have to be guidelines specifying the types of educational programs for which the leave would be appropriate. One of course would be for vocational upgrading, that is, very broadly for any kind of job-related training. Leave might also be available for those who wanted to change occupations or professions, though here we run into many objections. Yet the availability of leave to study for a new occupation or profession might be a powerful incentive for attracting people into what are generally considered to be undesirable jobs or undesirable industries or even undesirable geographic locations. We might consider a selective system of leave whereby people who would work say, in the mining industry in the north or on the oil fields in Alberta should have some component built into their package by which they would build up a right to a certain amount of educational leave.

In addition to vocational training we're also considering general educational upgrading and trade union training. I suppose the most controversial one is the general educational upgrading. Of course we would have to have some sort of standards about the kind of programs people could get into. We can separate the question of a right or even a privilege to educational leave from the question of financing. If people could go off on educational leave, obviously that would have to be financed somehow or another, either out of their personal savings, or out of the government's coffers, or out of the employer's pocket. What combination makes sense at this point we don't know, and we are open to arguments as to what should be.

The most critical issue, clearly, is the payoff. Let me outline some of the potential benefits that have been suggested to us. First, we know we're into a system of rapid technological change, and the extensive use of educational leave should certainly be a way of meeting that. The capacity of people to enter and leave the labour force in order to keep up their skills is damned important. We know that in professions like engineering you become totally obsolete within five years or so. Skilled tradesmen become obsolete very quickly. A lot of people in the labour force are dissatisfied with their current positions. A study done by Employment and Immigration a few years ago indicated that the one aspect of a job that young people were most disappointed with, more than money, more than the people they work with, more than benefits, was their opportunities for advancement. Whether that's because their expectations are too high, whether or not a lot of ability is not being used, certainly can be argued about. But educational leave has the potential for unleashing a lot of abilities in people in the labour market now who are being underused.

Let me address finally the question of cost. This is what people throw at us - that it's going to cost too much, that it might be an interesting idea but we can't afford it. One scenario we're looking at is that a scheme of educational leave can have a double payoff. It leads to higher productivity by training people, by giving them skills that would make them

more productive. The second benefit would be in employment. If enough people currently in the labour force are taken out of it and placed in educational institutions, presumably new jobs should be open. If you take people off unemployment and put them into those new jobs, unemployment payments will go down and government tax revenues will go up. This will tend to offset the cost of the training programs. When I mentioned this to some of the Manpower people in Employment and Immigration, they told me that the traditional emphasis of the Department, training those who were already unemployed, hadn't worked all that well; maybe a re-emphasis on those currently employed and more capable of benefiting from education would work better.

G.L. REUBER I would now like to open the floor for discussion.

W.D. McVIE I think it's frightening that the government looks at the problem as being one of education. There may be a problem of training that would involve paid educational leave. But to look at educational leave as the starting point indicates to my mind that there's a complete lack of understanding of our present financial straits, the present program of restraint. If you just want leave for leave's sake, that'll be negotiated in the collective agreement soon enough. I don't want our schools filled with people just to spend money, and that's the only outcome I see of studying it from that aspect. If we study it from the question of what we need and conclude that educational improvement leave is needed, which is the opposite approach to that of your commission, I could see it. For instance, we have three teachers that have gone away on sabbaticals; it's a complete waste of money now. We can't get out of the agreement. But it's because they approached it from that angle first rather than what the school system needs and what the teachers need.

R. ADAMS You're pointing to a sabbatical leave program that you say isn't working too well. The question is whether there are some other possibilities for this thing that would work better. Is there a possibility under this community scheme for working something out that would make sense? But thinking about this concept is a way of putting it into effect.

G.S. SWARTZ I'd like to point out that Roy has raised, and I hope his commission will be raising, a number of issues which, like it or not, are already with us. For example, in Thunder Bay the teachers have negotiated a collective agreement which provides for four years' salary to be spread over five years. The fifth year of that period, the teachers are free to utilize any way they see fit. It appears this is a form of job-sharing. It's also a form of paid educational leave where they are able to receive some financial benefits, or significant financial benefits, because their net income does not decrease by 20 per cent but by 10 per cent. The Globe and Mail in a lead editorial on this questioned the basic position, saying it's a tax subsidy: the federal government, through our income tax, is subsidizing that; is it fair? And yet the opportunity exists for a lot of people, not just teachers in Thunder Bay, for



those who are able to get income averaging. In this changing technological age with all the pressures that we face in society and in our jobs, we may need some period of time to recharge our batteries, rethink our goals, and redevelop or improve our own abilities and skills. In an industrial setting, and in industrial sense, the potential flexibility of this for training might enable us to do a lot of things we cannot do now. Many of the problems associated with training stem from the limitations of our current training regulations and in-training programs. Paid educational leave or some other way of financing an educational leave system that is not onerous to the taxpayer and does lead to some return may give us the kind of flexibility and means to do some of the things that don't seem possible right now.

J. SWEENEY One aspect of this thing that wasn't mentioned is the question of future lifestyle. Maybe we're moving toward the point where a certain amount of the year, or two or three years, is involved in so-called productive work, where there's an investment on it, and the rest is a time for personal growth. In the 1920s the Danish folk schools worked on that basic principle; because of the particular nature of agricultural work there were three or four months of the year when many people couldn't be productively employed. During that period they returned to what they called folk schools and just grew as human beings. It wasn't technical upgrading or anything like that; it was just a way of living, a process of living.

The president of a very large industrial firm recently said that for six hours in a so-called eight-hour day he would match his employees on a productivity basis with anyone anywhere. But in the other two hours something always comes up, and they really aren't too productive. The point he was making indirectly is that you can only push people so far, and maybe in the long run the payoff from a purely productivity point of view is that you can get just as much out of people if you incorporate this kind of factor into their work. For example, if people would really work all out for four months and then the fifth month off, under normal conditions they'd do just as much work in five months as if they had been working all that time.

R. ADAMS I recognize that point, but our terms of reference require us to look at this issue very clearly in a cost-benefit framework paying particular attention to the outcome on productivity and employment. If a good argument can be made that there is a productivity payoff to people recharging their batteries or taking general social, civic, or cultural courses, then we'll certainly consider that. But we're being told very forcefully that it won't have any credibility, the idea of more education for education's sake. It has to be justified.

J. SWEENEY Let me put it in a specific frame of reference. I heard at the June conference sponsored by the Ministries of Education and Labour here in Ontario that some of the high-technology industries are having problems attracting really bright young people to their work forces, the kinds of people they might have been able to attract intellectually, if you



want to put it that way, twenty years ago. Those intelligent young people automatically go into university. If such people could move into these highly skilled technological areas with the understanding that they would be able to step out, let's say, a couple of months of the year and get a university BA or an MA or a PhD and yet still be a topnotch person in their own area, that would be part of the kind of personal growth and payoff system that I see.

H. ST-ONGE I'm surprised at the idea of putting people out from the workplace into educational institutions. I think that by far the most gratifying area to acquire new skills is in the workplace itself. Increasing people's skill right in the workplace is the best way of providing not only satisfaction with their work but also an improvement in their quality of life. If people are taken out of the workplace for a year and put into educational institutions, they may come back feeling they've been out of the mainstream. The BA and PhD are not the only achievements to be attained.

R. ADAMS I agree. We're running into a definitional problem. How do you define educational leave? Conceivably we could include within our mandate any time someone spent learning on the job. But that would simply make nonsense out of the definition, so we have to break it somewhere between what the job is and what education is. Basically we're saying that if people are off their regular job and participating in an educational program they're on educational leave. The next question is whether they are on educational leave if they're in some other part of the plant taking training. I'm not sure how we would handle that. But even with current apprenticeship programs, where most training is learning on the job, there's still a classroom component, theoretical aspects and so on. In any system there is room for classroom education as part of the over-all educational experience. If you're saying that people can learn everything they need to know by staying right at their job and learning from the people around them, I don't believe it. I think you need a mix, and this is a tool for achieving some kind of mix that makes sense.

D.R. SHAW As far as upgrading is concerned, I can give our own experience as an example. For several years we have been on contract from industry upgrading the training of employees while they're still working. In other words, Bell Telephone would send us people during the first three hours of the morning, and we would give them skilled training in various subjects to upgrade themselves, and they go back and work in the afternoon. This also happened with the Star and the Sun, where we trained the old linotype operators to work a varitype machine. So it is being done. In our case, of course, the industry, the firm, is paying the full shot, both the salary and the tuition fee. A way around it would be for the business firm to pay the salary and the government, if it wants to become involved in such training programs, to pay the tuition fee.

R. ADAMS One of the most interesting things we'll be able to do is simply highlight some of the programs that currently exist and bring together ideas on this. As to the relationship between the federal and the provincial governments in education; it turns out that the federal government is involved up to its ears in education, not only in Employment and Immigration, but also the Secretary of State, Industry, Trade and Commerce, and Labour.

D.R. SHAW You have to recognize that only the large firms can do this. A small firm couldn't afford to take someone away from the office and put them in an educational training institute for any time.

R. ADAMS Maybe individually they couldn't. One suggestion is that enough money could be made available so that the small firm could go to something like a temporary help agency to bring someone on while an employee was away. Obviously that kind of person would be less productive, but would the payoff be sufficient to make up for that? And could a system be devised that would allow them to do that, and could the temporary help agencies supply the demand that would be opened up. Alternatively, if we take an example of a small firm with ten people, all of them being used up to the hilt, if there was enough money made available the firm could then have eleven people, with one person, let's say one man-year, being rotated in and out of some kind of educational program.

I know this sounds strange, but what we do now is take all young people and keep them in educational institutions, and all adults we have working. Maybe we need to restructure the whole thing to allow people to move out into the world of work more easily and to make it easier for them to advance through continuing educational opportunities without actually having more people spending time in educational institutions. It would just be different people rather than more.

H. NOBLE I can understand what you're doing from a lifestyle point of view, and I can understand it from an equity point of view - we're spending 90 per cent of the money on 10 per cent of the people. I'm sort of confused as to why you're coming at it this way. Why is there a commission on this idea, and why isn't it looking at "lifestyles" because that's what it's looking at. The problem is life styles, not paid educational leave. Why did the minister of labour decide that this was the a neat thing to look at?

R. ADAMS The ILO passed a resolution, and we as a member of the ILO have some responsibility to at least look at it. The second reason is that several European countries have made initiatives on this issue during the last few years. If you're telling me that it would make more sense to have a massive five-year royal commission on the entire relationship between work and education, I'd agree. That would make more sense.

D. WINCH I can't help feeling that you're in the severe danger of muddling up three different things and in the process missing the point, which is a fourth.

The first of those three things is the opportunity for profitable training of an employee, by which I mean profitable to the employer; there is already abundant scope for employers to train their employees when it's profitable to do so, and a great deal of it is going on.

The second one is aggregate hours of work by an employee. There was a time when a six-day week of twelve-hour days was standard. Now the standard is about half that, and the real income of the employee has risen enormously. So using the earlier base of comparisons we could in a sense say that he's already on half-time paid leave. And if you follow that sort of reasoning you're going to be talking about the total number of hours a year that a person ought to be expected to work, what the right length of the working year is, which is a totally different thing to talk about. And with it you could muddle the opportunities for self-improvement and further training. We've got public libraries; we've got abundant evening courses, where the fees are ridiculously low. The opportunities for the employee to upgrade his own marketable skill and the time to do it is already there. If you're going to talk about that, you're talking about aggregate hours of work and nothing more.

The third of those things is compulsory education. We have a system which says from the age of five until an age at which the school system has certainly had abundant opportunity to impart basic literacy the child shall attend full-time education.

What you're now talking about is whether we should have a state that moves in and says "if you are going to have shorter hours of work, thou shalt be required to devote some of thy leisure to include education of some form or another". Now when is the school leaving age going to stop? Sixty-five? Or is big brother going to tell you that if you get shorter hours, you must spend them in the classroom, and if you don't spend them in the classroom you shall not get shorter hours. Which of those four are you really concerned with? I can't help feeling it's the fourth masquerading under the first three.

A. THOMAS It seems to me that Professor Winch has put his finger on the fundamental issues. But I think that we need to address those in part in the way that Roy and his commission are going about it. If you look at the arguments for compulsory education for children at the turn of the century, you'll find that very little of them were concerned with lifestyle. Most of them were concerned with emptying the jails and filling the churches, and all sorts of practical matters that are not unlike stating the issue in terms of paid educational leave. I don't think that a commission on lifestyle would get very far.

One of the important things Roy pointed out is that there's a great deal of paid educational leave in this society at the present time. In the milieu in which I work, of our ninety full-time graduate students I would guess that forty or more are on paid educational leave. The evidence also is that they are very well employed when they graduate, and if their salaries are any indication their productivity is at least acceptable if not better than that.



Another formulation coming from the OECD and other sources recently is that we've developed an outer and an inner economy. One of the distressing characteristics of the present economic difficulties is that the inner economy isn't doing badly at all. As a matter of fact it's doing quite well. The outer economy is getting all the lumps at present, the outer economy takes almost no part in the existing system of paid educational leave, only the inner economy does. If we leave things the way they are, that will continue to happen. The European systems in which paid educational leave in an enormous range of complexity, particularly in France, exists through a variety of sets of legislation, still indicate that the members, perhaps the marginal ones, but still the members of the inner economy, are getting the advantage of paid educational leave. The people in the outer economy, who are the less skilled, the transient workers, and what not, are not getting any benefit at all even though it exists in legislation.

One of the things that bears on my imagination a good deal, having come of age in 1939, is that if you listen to the arguments for paid educational leave, both the far reaching ones and the more specific ones, you find that on two occasions in the history of this century we've met most of them, and we've met them by going to war. We supplied almost all of the things that paid education leave argues for by going out to kill somebody, including the full employment of our young. It seems to me this issue touches questions in the lives of our citizens that are just as deep and profound as those that are involved when a country emerging from a disastrous depression goes enthusiastically off to war. Those of you here who can may remember that one of the characteristics of 1939 and 1940 was the release of immense opportunities for adults to learn new jobs, new tasks, to do new things, all at public expense, which very few at the time begrudged.

William James spoke of a moral equivalent for war. We're trying to find a way within our industrial system, having spent now for the first time in this century thirty-five or forty years without a popular war, to meet the needs that going to war met. Along with everything else, war brought some good things, and many of them are associated with what happens to a population when you encourage it to learn.

I suggest that we pay a little less attention to the results of acquiring a trade, even if it is the language of treasury boards, and a little more attention to what happens to the individuals and their environments while they're acquiring the trade. Because while they're doing it they're engaged in learning something, and if the circumstances are right, as they often are, an enormous amount of energy is released by those individuals into that environment which employer and employee and a great many other people benefit from. So there is the issue of the outer economy which will not benefit if we don't go beyond the forces that are pressing for educational leave at the moment. And there is the other magnificent matter of what happens in an environment where people are willingly learning to do new things.



G. MURTAGH The plain facts of the matter are that we run the Canadian economy at about 80 per cent capacity with about 10 per cent unemployed, and we can argue those figures a bit. But the question is what are you going to do with people? You can't absorb that kind of unemployment for long before you start suffering social unrest, and paid educational leave may be one of the ways of sorting that out. Secondly, it was mentioned that something like 92 per cent of the post-secondary education expenditures are spent on about 9 per cent of the population. I'm not prepared to accept that that kind of imbalance has to exist. It's unfair and it's unreasonable.

Then I hear a gentleman talk about "continuing education". That's all very well for a group of middle class people who are used to the concept of taking courses for which in some instances they pay but in a hell of a lot of instances they do not pay and for which the element of upward mobility is rather impressive. For some of the other people in this world it's not that simple. It's been many years since I worked in a mine, but try doing some of the manual labour that has to be done in this country. It's damned rotten work. When I hear a community college teacher say that when it came to getting out of the plant and going into a community college for a day-long course all these workers wanted to get out of the plant, I have no trouble agreeing with that. Go clean out a damn foundry some day.

You know it was curious. I happened to be at a session with community college teachers from across North America who were trying to tell me that somehow or other that they had gotten out of their plant for a very different motive. Now I'm prepared to accept mixed motives. There's nothing like getting away from any plant at any time, and you just may occasionally learn something.

Educational leave is here in Canada to stay. There are some impressive figures on it. Something like 25,000 employees in one particular union are on paid educational leave contracts currently amounting to about a half a million dollars. Ten major trade unions in this country have committed themselves to negotiating that element in the contract, and in every instance where they made it a priority issue they got it. We're not going to give it up.

If the universities of this country want to make themselves any more redundant than they are, and if the secondary institutions want to divorce themselves any more than they have from what's going on in this community, I'm not prepared to make any great arguments in terms of saving their jobs. To date what we in the trade union movement have done is use this money primarily to train our people in terms of trade unionism, concepts like collective bargaining and what we commonly call the core programs. We'd like to think that somewhere out there in the community there is room for us.

J. WOOD I was coming at it from a practical standpoint. In a company like mine and a lot of other companies the size of mine, there are fewer and fewer ways to reward good performers at all levels with non-taxable benefits, and educational leave has become considered more and more a fringe benefit, part of

the package. It's coming that way just as much as through any strong educational desire to keep people upgraded. People who are good performers in our company are asking for it because they don't want more salary because it's taken away in taxes. The other benefits are just not worth having, and they're making a plea for this as a choice in the fringe benefit package.

The funding of it, though, is a different matter, and we did discuss it in some detail to see whether we would bring something like this in. We wondered what you are going to be recommending on funding. Would there be something like a reduction in the rate in UIC for provisional short-time disability or long-term disability? If a company like ours offered it in their package, would there be a reduction in UIC rates, for example, as a way of returning the money? We would fund it but we would get a reduction in our taxation?

G. REUBER Roy mentioned the commission was going to do a cost-benefit analysis, and I think that's useful. But I'm a little sceptical of what you're going to estimate because many of the benefits, as is evident from around the table, are not going to be very easy to measure. For example, I know very little evidence supporting the proposition that more education leads to higher levels of employment. Indeed, to the extent that the cost of that education leads to further costs of production in an open economy, it could very well go in exactly the opposite direction.

The other side of this is the equity question, and that is a real point there. But another solution is to charge the 9 per cent that are collecting the 90 per cent. That's another approach to equity.

J. SWEENEY We're throwing this figure of 9 per cent around, and I'm not sure what it's based on. As always, when you start using percentages an awful lot depends upon your base. But the clear statistics, the facts, not guesses, in the province of Ontario are that in the eighteen to twenty-four age group we have 20 per cent of that population full-time in post-secondary institutions, roughly 12 per cent in universities and about the other 8 per cent in community colleges. Now, if you go beyond that, up to about roughly age thirty-two, you've got another 10 per cent, so that between the ages of eighteen and thirty-two, roughly 30 per cent of the population is participating in some form of post-secondary education. That figure of 9 per cent is a little misleading.

G. REUBER I don't know what the 9 per cent is based on, but there is no doubt whatever that a minority of the population is getting most of the educational subsidy.

J. SWEENEY There's no question about that, and I'm not trying to defend it one way or the other, but it is a distortion.

H. ST-ONGE I can perhaps tell you how that figure was calculated. The 90 per cent was arrived at by identifying the amount of money that was spent on what is considered post-secondary

education, including everything except skill training - what we call the post-secondary stream in community colleges and universities. Next we looked at the equivalent figure for those taking industrial training or upgrading or anything that was education but outside of the post-secondary stream. We arrived at 90 per cent for post-secondary university and colleges and 10 per cent for industrial training and skill courses and upgrading and that kind of thing.

D. WINCH 9 per cent of what?

H. ST-ONGE Of government expenditure. Through a recent survey done by Statistics Canada of all the occupations of everybody in Ontario, we looked at the occupations that required post-secondary training in universities and community colleges, and that represents 9 per cent of the whole distribution of employment in Ontario.

J. SWEENEY That's an awful distortion, excuse me, and it really is misleading, and I don't think those kinds of figures should be used in the context in which they've been used here. For one thing, just in the last nine years the total participation group, again from eighteen to twenty-four, in other words the high school graduates, had doubled, mainly, I submit, because the government has provided student grants, student loans, and things like that. It's absolutely doubled in nine years, and the biggest group that's benefited has been the lower middle income group - not the lower group, we still haven't tapped that one at all, but the lower middle. Those figures distort what we're trying to get at, because what they seem to be saying is that only 9 per cent of the population is benefiting from what I would call higher educational benefits.

G. MURTAGH The point is that the figures are correlated to income levels. The OECD examiner's report pointed out that when you correlate the income figures there's no question that broadly speaking the higher the income the more likely you are to go on to post-secondary education. The faster the drop in income the more rapid the drop in percentages going on to post-secondary education; in fact curve downward steepens.

Sure the number of people completing secondary education has increased rather dramatically in the recent past, but the point is that 70 per cent of those people go out into the work force upon the completion of approximately grade 12. Most career counselling in the secondary school system is devoted largely to the people going on to post-secondary education, to the almost total neglect of the 70 per cent going on into the job market. So let's talk about equity and let's forget all the estimates. I can drum up my figures on the estimates too.

D. WINCH I think we have to be very very careful about misinterpreting any figures, whether it's 90/10, 70/30, or what, until you put them in a frame of comparison. If for example I were to argue that it is the 10 - or is it the 20, or is it the 30 per cent of the population that receives the higher



education - if I were to argue that from among that group come the individuals who improve the technology that increases the incomes of the 100 per cent in the passage of a generation there would be no way you could prove me wrong and no way I could prove myself right. You cannot talk about who benefits at whose expense until you have a frame of reference, and you haven't got a frame of reference until you talk about what an equitable pattern of income distribution is. So please let's not try to crack an insoluble problem with individual statistics thrown around. Whether they are numerically right or wrong they can be terribly misinterpreted.

W.D. McVIE The country is facing some major problems, including a deficit of \$16 billion. Whether that might lead us to educational improvement leave for everybody, I don't know. As I see it we're tackling the problem backwards. I don't suggest that if half the population works and the other half studies or does something else it wouldn't be good. I don't know that answer. But I know that commissions can get a point of view because of the assignment they're given and end up not balancing but coming up with answers that fit the challenge.

I've worked with the very poor in Montreal in a difficult situation. I know it's not as simple as just taking money and handing it over to them and it solves all their problems. It doesn't do a damn thing for them. Equity, churning out money, doesn't solve very many social problems. The social problems are real, they need to be tackled. And I'm not opposed to the unions developing as part of their strategy release time from employment. I think it's great that they're doing that kind of thing. But that doesn't mean that I think the government should be tackling this problem with this point of view. I think that you're being headed off in the direction that this country doesn't need at this time. They have such huge problems to face that I just wonder how they can waste time looking at the problem from that narrow a viewpoint.



The Role of High Schools in Vocational  
Training and Vocational Counselling  
D. McVie

I have been asked to discuss technical and vocational education and the guidance involved at the secondary school level. I am not really aware of any good reason for my selection except perhaps to obtain a non-expert opinion. But I do happen to have a real interest and concern in this area, and I am extremely hopeful that the discussion on the topic at this seminar will give me an opportunity to learn from you.

The "one absolute truth" (when one listens to general comments) is that the schools are not teaching technical and vocational courses well, the courses we teach are not relevant, we don't encourage students to enrol in the poorly taught or irrelevant courses, and the entire operation is too expensive. You may wonder how there can be so many "one absolute" truths, but I seldom hear anyone who is not certain that they have the single absolute answer to problems in education. I must admit that we have problems - probably more than I know - but they are complex, not simple, and many of them have their source in society, politics, or the general attitude of teachers and students rather than in cost or facilities. The recommended absolute solutions tend on the other hand to be a lower pupil/teacher ratio, harsher discipline, more academic basics, lowered tax rates, and increased expenditures on equipment.

In the face of the conflicting expectations and conflicting solutions I do not feel capable of producing an equally facile presentation to satisfy the group. I will attempt to give my view of where the schools are at the moment, where they might go in the future, and some of the handicaps that must be surmounted if the future is to show a real improvement.

## SOME HISTORICAL PERSPECTIVES

The history of technical and commercial education in Ontario, as in most of North America, relates directly to our dependence upon immigration to solve our problems. The objective of the influential middle class and the politicians who represent them has been to have their children escape manual work for clerical or executive occupations. It was recognized that some poor students were not going to make it; so, in the cities where taking over the farm was not an answer, a series of technical and commercial schools were established. Money was spent on these institutions, but their acceptance was limited. Academic students were encouraged to take a fifth year to learn the skills they were probably born with, while vocational and technical students were expected to achieve mastery of their skills in four years. My personal experience is that it is easier to pass a graduate history course than to patch a plaster wall without a bulge or cut a 45-degree corner without a crack showing in the joint. I doubt whether six years would overcome my problems with these two challenges while milling a sprocket would probably keep me occupied for a lifetime. The separation of academic and technical streams tended to be absolute until after the second world war, when a number of veterans who had gone through technical schools prior to enlistment used their veteran's preference to enter university courses. Once enrolled they soon showed the artificial division, but to do so they usually had to abandon their technical expertise for academic pursuits.

In spite of the evidence, however, changes were not coming. Not until the county boards and the credit system appeared did the walls begin to crumble. Composite schools were built throughout the province, and the solely academic collegiates started to lose much of their attraction. In vast numbers of students are including some technical and commercial courses in their programs and, in the process, developing a greater respect for those options. The creation, growth, and development of community colleges have begun to

provide a further attraction for secondary school students to look at the technical options available. These changes do not mean that the problems have disappeared, or even more than begun to disappear, but at least some of the necessary first steps have been taken.

## THE NEED

A second aspect of the problem that deserves a brief review is the need for specialized training. It may seem almost redundant to talk of need when there are nearly a million unemployed, but there is no more advantage to having an unemployed machinist than an unemployed PhD sociologist except that the investment may be somewhat less. This summer I attended a meeting of representatives of employers, labour, and government. The employers knew they desperately needed mould-makers and machinists, but showed little interest, indeed almost hostility, when asked to look ahead at other needs. They offered general criticisms of school and college training but were reluctant to generate the minimum core of knowledge that would be required to improve the product. This experience is not an isolated one, unfortunately, but an example of a continuing problem. The vocations and technologies tend to change rapidly, and our methods of projecting needs are at the kindergarten level. With teacher supply we know we don't need many, but we continue to turn them out. With technical and vocational training we don't even know the real need, and yet the specialties tend to be numerous and relatively small in number (fifteen hundred to two thousand more needed in the machinist and mould-maker categories at this time), with employers varying from Ford to a local shop employing two or three. Our employment record for technical graduates in London this year reached almost 70 per cent, with a further 20 to 25 per cent going into further education. The high employment figure reflects a close relationship between our technical teachers and industry, but that is not typical of schools in the largest centres or in the smaller ones, where industry is less

community-oriented or located in other areas entirely. Even in London, however, our knowledge of long-term needs is far too limited, and this makes guidance even less exact than it normally is.

In the service vocations, as in commercial training, the needs tend to be more constant where the student is taught good work habits and the value of a pleasant personality. Our vocational schools have a very high placement rate, although even here trouble can develop from a growth in self-service retailing, especially in automobile servicing. The introduction of the credit system into schools has of course had a tremendous impact on vocational schools, where the old two-year program has been extended to four years for many students, thereby raising the potential training level markedly. We have serious problems determining the level of expertise that should be introduced and what can be done to ensure that the extra time is not used to train students to work at a less efficient level by reducing the pace of teaching and learning.

#### ATTITUDES TOWARD TECHNICAL TRAINING

Having looked briefly at where the schools are now and what we know of specific needs, I turn next to my major concern. In spite of huge expenditures by governments at every level and repeated statements that technical training is essential to our industrial growth, the public and many educators just do not accept reality. For example, the working paper developed in response to the Interface study suggests one subject council for business and technology out of eight such councils. It does suggest that some college teachers be involved, but not in any specific terms. It implies throughout its content that English and mathematics are the only real concerns. While I can agree that the communication skills are essential, I can hardly agree that the business and technology interface is less important at the level of post-secondary education than at the academic level.



The examples of attitude problems are almost endless, but a few may make my point clearer. This summer one of our principals wrote a paper for a university course, and its contents appeared in the London Free Press. In studying the possible closure of a secondary school, the author looked only at comparative costs per student at our major comprehensive school and at other schools' per-student costs, and, since the costs were highest in the technical courses, recommended that the major comprehensive school should be closed as an economy measure. Another principal stated publicly that all small schools should remain open even though all options would basically be wiped out. When courses in French were offered in a fully composite school, some parents suggested they should have been offered in a strictly academic school, although there is a great deal of evidence that excellent academic students benefit more in the comprehensive school, and it certainly offered many more future choices to the French students. Both schools were basically in the same area of the city, so that socioeconomic factors were not an issue but history was a major influence. These incidents occurred in London, but they are not atypical, unfortunately, as all boards face the same attitudes. These problems of attitude are extremely complex and extend from the most rigid classicist to the technical teachers themselves. Whether it is a lack of understanding of the need for technical education or the defensive attitude of a technical teacher who mentally considers his role inferior, the damage done is equally serious. Both these extremes are fading, but we would be hiding our heads in the sand if we did not consider the reality. As long as educators fail to see the essential role of some technical or commercial education for most students but particularly for those who eventually will staff our industrial development, the public will be unlikely to develop the positive attitudes we need.

As if our other problems were not sufficient, when we start to look at the interface between the colleges and the schools, jealousy or self-protection must be added to our list of concerns. At the time the community colleges were formed it

might well have been possible to rationalize the provision of technical and business training. Money was not a major concern; neither was job security. The opportunity was not seized, and although overlap is not the major concern it might be (or may become as institutions hungry for customers join the fray), it exists to a wasteful extent. The most pressing concern under present conditions is the grant level, which makes it difficult to continue certain options at secondary schools, while limited college grants for some of the adult education activities create problems for them as well. The attitudes of the professionals in both types of institution do not make it easy even to generate discussions let alone agree on solutions.

Instead of recognizing the differences in student maturity and motivation and examining what each can do best, there is a tendency to become defensive; the attitude, while far from universal, is far too common. The real weaknesses of both systems need to be examined and efforts initiated to overcome them. The schools need to know what skills are essential at their level whether in communication or technical trades and then concentrate on producing those skills in their students. Colleges must also recognize which skills their students have already developed and work from those, giving full credit for what has been mastered. They must be on constant guard against trying to become junior universities, while maintaining high standards that are essential to the jobs of their graduates. In one example that came to my attention last week it was suggested that millwrights should know most of the theorems of plane geometry and understand the theories of logarithms. While I can accept the possibility that the practical applications of those mathematical principles might prove essential I am convinced they are inappropriate to the training of a master craftsman. I wonder whether an unconscious desire to prove academic equality is not a factor. In secondary schools the same mental process can often be detected. I would urge closer co-operation between the Ministry of Colleges and Universities and the Ministry of Education and the involvement of neutral people to review objectively what each should be doing on the

basis of effectiveness and cost. Premier Davis has recently stolen my idea and named a single minister over two Ministries. I certainly hope Bette Stephenson can accomplish the task I have suggested.

#### RELEVANCE

Perhaps the most common complaint of employers of technical, business, or academic graduates at all levels of education is the lack of relevance of the training to the job that they are faced with in business. A large portion of the problem, of course, lies with the type of graduate hired. We have students who write well, speak well, are strong in shorthand, mechanics, or science, and are creative, but few of them enter the job market directly. A community college instructor recently pointed out to an employer group that our best secondary students in machine shop or welding went directly into industry, learned quickly, and were considered industry-trained, while the weaker students went on to college courses but tended to remain relatively weak learners. I agree with that assessment. But there are other problems which affect the learner, and the most easily corrected is course content. We cannot as educators teach everything that individual industries require, but we could teach the essential elements if they were clearly defined. In London, as in a number of school boards, we have found it necessary to develop a minimum core curriculum in most academic subjects to ensure some standard of mastery. Industry leaders must work together to determine what those essential and common elements of the various occupations are and then demand that we tell them when and where we can deliver mastery learning of those elements. A recent Industrial Training Council meeting I attended showed little understanding of the variety of problems the individual employees faced or of our need to have them achieve consensus. Somehow we must reach the good journeymen throughout the industrial complex and have them validate a minimum core curriculum for both schools and colleges in each trade.

We have two other major problems with the relevance of our programs, and both are becoming more serious. Our equipment was almost all purchased a number of years ago on the basis of federal grants, but with those grants gone and restraint the name of the game replacement with more up-to-date equipment becoming constantly more difficult. Our present equipment budget will not permit the replacement of our equipment even over a twenty-year period. When one considers the impact of both wear and technological change, it is indeed going to become more difficult to maintain a relevant program. The other major concern is our increasingly aging staff. Technical teachers, like all of us, tend to consider most important those things that were important to them when they were using them directly. For this reason the 1968-73 period saw us making relatively rapid changes as new teachers, fresh from industry, entered our shops each September. This process has slowed and will be further slowed in some areas as the youngest, most current teachers are forced out of the schools by declining enrolment. We must plan very specifically to overcome this problem by keeping our teachers in direct contact with industry. One solution is to encourage teacher and student involvement with co-operative work schemes where both get into industrial settings to see the latest in machines, methods, and materials. For this reason we must consider very carefully the tendency to solve the administrative problems involved in work-study and on-the-job training programs by naming co-ordinators. These individuals, no matter how good they may be, cannot carry the messages back to the shop teachers that the latter can obtain by visiting their students in an industrial setting.

#### THE CENTRAL FEATURE

The one element not mentioned previously except in a casual manner is the students. School administrators often joke that we could run very efficient school systems if we didn't have any students or teachers to bother us except that we might find it somewhat boring. Seriously, however, too



often we talk about the courses, standards, or basics without really considering those at whom they are aimed. Generally speaking, students today are very conscious of individual rights, but at the same time they tend to be influenced strongly by peer pressures. They have high expectations for earnings upon entering the work force and expect immediately many comforts we earned only after years of labour. They want a purpose for activity other than the request of an adult. They tend not to aim for the future at the expense of the present. Finally, they look for white collar positions rather than blue collar jobs. This summer I was looking for some casual labour help with a project and perused the employment-wanted columns. I saw at least twenty advertisements for young people who wanted to be public relations executives; a number had ambitions in personnel; but none was anxious to work at any sort of manual labour. I am not suggesting that young people are lazy or indolent but rather that far too many have a picture of instant leadership, preferably in a commercial or financial institution. They did not create that false picture; they read it in papers and magazines, heard it on radio, and saw it on television. Both the middle class and the employed lower class have a dream for their children, and governments and educators joined in an advertising program which implied that academic education was the combination to the vault. Our society, unfortunately, has developed a bad habit of importing its workers, both skilled and unskilled, and our young people are an integral part of that society. It doesn't mean all students are the same or that no change can be made, but it does mean a real problem exists.

To overcome our problems with student attitudes, more than a few public statments on the need for technical training will be required. Our guidance counsellors cannot do it alone. Industry must get deeply involved in visiting schools and selling their need. The amount of government advertising must at least equal their earlier expenditures on the need for academic education. The specific steps in the educational process and the relative roles of schools and colleges must be clearly

stated so that students can understand them, and it must be clear that those steps are well organized and essential. Then the concept of mastery must be equally developed and supported if our new technical graduates are to satisfy the demands of industry.

## GUIDANCE SERVICES

When I was a graduate student assistant in the Vocational Guidance Centre in the early fifties, guidance was highly structured, and we spent much of our time updating vocational information and sending it out to schools. Regular weekly periods were assigned for transmission of this information to students. The lack of flexibility in the schools' programs made much of the effort futile, and the rigidity of the guidance format led to a lack of credibility among both students and staff. As the years passed the flexibility of the schools was increased, and the importance of the individual became paramount. Increased study of psychology as a part of the training of guidance counsellors led to an increasing emphasis on personal or adjustment counselling and a lessening emphasis on factual information flows. The theory was that it was useless knowing about careers if you were too mixed up to enjoy them, so that we had best concern ourselves with personal adjustment to the social order. There was still a continuing element of educational and vocational guidance, but its importance was downgraded and the time available increasingly eroded.

Recently it became obvious that we had problems with career guidance. Weakness of the delivery systems only complicated the lack of up-to-date information. The Ministry of Education developed a Computer Guidance Information System which made it possible to obtain the latest information on careers in a computer printout for individual students. Four years ago a few London schools along with a number of others across the province were using the system for a relatively few students. By last year the Ministry made the program available

to all students in Ontario through regional centres with the being paid by the government. During the past year the federal government obtained the Ontario files, expanded them to some extent, and offered a system, but to this point it is not as available in schools. Not resting on their laurels in this area, and responding to the obvious leadership and interest of the deputy minister, George Waldrum, the Ministry is beginning this year to provide vocational and interest inventories to strengthen the guidance program. The technical aspect of the delivery system is now pretty well in place and more accurate, efficient, and wide-ranging than ever before. We used to revise our monographs on vocations every two to five years; now the revisions can be made at least yearly, and more frequently when required.

The other aspect of the guidance system, the counsellors, have also been updating their role. In our own Board the review of guidance roles began at least four years ago and culminated in a new policy being adopted almost two years ago. Ministry guidelines have since indicated that the direction will be universal across the province. The documents are detailed and therefore too bulky to repeat here, but the essence of the new direction is contained in three elements:

- The emphasis in guidance will be on academic and vocational guidance. Personal guidance will be increasingly the responsibility of homeroom teachers assisted by guidance and psychological services.
- A delivery system for accurate information on careers must be developed in each school.
- The expertise of all teachers, particularly technical and vocational teachers, should be increasingly used to provide a more personalized flow of career information.

The reintroduction of a total staff commitment to guidance services, when achieved, should result in a more relevant and credible service. Mistakes will still occur, and students will often continue to close their eyes and ears to advice, but we should soon be able to say with considerable confidence that

accurate information is available to every student who will accept it.

## SUCCESS AND FAILURE

The story to this point has been a mixture of good and bad news. It recalls an educator commenting at the height of the building boom that the good news was that they had the best technical school in the country and the bad news was that all their students were in academic courses. This experience is becoming constantly less true. The credit system with its single options in various shops has encouraged hundreds of thousands of students to get into shops or commercial courses at least at the introductory level. The students who have had this experience are much more sympathetic to technical training and much more likely to admire and envy the expert who can mill a piece of steel, straighten a dented fender, make a motor hum, or type rapidly and accurately. The stage is set for the guidance program and the publicity campaign suggested earlier.

Generally speaking, the larger city boards have technical courses which are reasonably up-to-date and meeting the needs of thousands of students. In London the number of technical credits has been increasing much more rapidly than the school population. Further growth on a per-pupil basis is likely to be limited by increasing numbers of compulsory courses, but maintenance of the present interest level is forecast. The acceptance of our graduates who have taken four years of training is extremely good. As I reported earlier, approximately seven out of ten go directly into jobs, while two and a half of the remaining three go on to further studies. A report made to the Toronto Board of Education (Trustee A. Hancock, Chairman, Evaluation of Technical Courses Sub-Committee, Toronto Board of Education) and presented to the Ontario Technical Directors' Association last May refers to a problem of poor public image and a failure by industry to hire their graduates. It is difficult to judge the nature of the problem. Does the larger city create a lack of community support? Does the



separation into technical or commercial or vocational schools rather than fully composite or senior composite schools contribute to the problem? Certainly our two vocational schools have a greater image problem than our senior composite schools, but the problem has been alleviated by the transfer of teachers and principals between all schools in the system.

The country boards have a greater problem with technical education. Most of them, because of a more scattered population, have had to limit technical offerings to Auto, Drafting, Wood or Building Construction, Welding, and a limited machine or electrical program. Very often four popular shops will be operated with a fifth as a teacher's alternate assignment. In many instances local opportunities for work experience may be limited to one or two of the shops. Whereas in the cities the advanced students in various specialties can be collected in more advanced shops and courses, in smaller centres the level of equipment and expertise may by necessity be lower. In general, however, the county boards with their larger units of administration brought the first real technical training opportunities to many communities. The family training unit, which trained the blacksmith and then the auto mechanic, was supplemented (and finally, with the growing complexity of machines, supplanted) by an organized, school-centred training facility to which transportation is provided daily. The presence of colleges of applied arts and technology throughout the province and their tendency to set up satellite programs in various centres should have multiplied the highly trained personnel available.

#### DECLINING ENROLMENT

The effect of declining enrolment is the subject of a study by Robert Jackson, and while I do not intend to inject my views into the debate, I could not complete a paper on technical education without commenting on my concerns. Technical and vocational subjects, to a much greater degree than commercial or academic courses, have low pupil/teacher ratios, and the

teachers tend to be more limited in the variety of options they can handle. These courses are more vulnerable when trends change or numbers decline. In a city such as London we will have up to three advanced shops in a given technical area and perhaps seven junior shops. Most of these have sufficient enrolment at present, but a loss of only five to seven students will wipe out a class in one school. If we keep all our schools open and lose 3500 students, who average a third of a course each, we could see up to one hundred classes being lost, and this might well mean that specialized teachers cannot be provided for as many options. Thus the most highly specialized and perhaps those less popular (although possibly more essential) technical options may disappear from all schools at the same time. This threat is even more serious in areas where using a part-time teacher in several schools is impossible, but it can happen in city schools as well. The addition of two more compulsory subjects such as French and physical education could have the same impact, of course, by removing many one-credit students who help to justify the hiring of a specialist teacher, but I feel the minister of education is probably aware of that danger. There is less control over declining enrolment.

The point I want to make clearly and strongly is that declining enrolment is a threat not only to the number of students in any given technical option but rather to the very existence of a number of courses. The grant structure may have to be altered or some method developed to generate income if the impact both outside and inside the cities is not to be serious. Possibly Dr Jackson will provide a solution - if he does not then we had better look elsewhere to find one.

#### A PROMISING CHANGE

One of the most significant changes to be introduced into technical training was the release in August of a new modular program for apprentices in three newly regulated trades. Machinists, tool and die makers, and mould-makers will be trained under a system that permits the individual to obtain

full credit for any identified module in which he has attained mastery. For the first time, training in schools, colleges, or industry will be recorded provincially as it is completed. This process could be expanded to all technical and vocational courses with co-operation between boards of education, colleges, and, in regulated trades at least, the Labour Ministry. Combined with the minimum-core approach mentioned earlier, this path could lead to marked and rapid progress.

#### SUMMARY

May I stress again that I am a layman in this area rather than an expert, and I was requested to give an overview rather than a review of research. My own technical experts might well quarrel with my reading of the problem or my conclusions, but possibly the real value of the paper lies in the fact that a non-expert in a position to exert some influence holds certain views that, even if faulty, should be addressed - whether by a rap on the knuckles or a publicity campaign. On to my conclusions:

There is a need to develop a minimum core program in technical and vocational skills that teachers and students can handle in a given period of time. Journeymen and technicians in the field must advise us on the relevance of each item in that core. The involvement of businessmen, labour representatives, and educators to that end is essential. Once this is accomplished we can insist upon mastery of those elements by our students, reporting the degree of mastery to employers or advancing trainees to the next level. I am tired of hearing general complaints about inadequacy when no one has really taken the time to find out what training items groups of industries consider essential.

There is a need to implement the modular training units proposed by the Ministry of Labour and extend them to all aspects of training. The modular approach should enable flexible movement between secondary schools and community colleges or Employer-Sponsored Training. One of the greatest problems

facing guidance personnel is attempting to tell students where they can complete their training while protecting the credit they will receive for the current course. Surely, if we can identify the elements that have been mastered, granting credit for the achievement should be simplified.

- A major advertising program to improve the image of technical and vocational education is required. Both students and parents need to be reached, but so do an unfortunately large number of narrow-minded educators who see only copies of themselves as being worthwhile. The Ministry of Education needs to make it clear to trustees, senior administrators, and principals that they have an obligation to the country to make it work even if some favourite symbols of the past have to disappear.

- The problem of equipment replacement must be faced. A survey of schools in Ontario indicates that well over \$16 million is needed just to replace equipment that is both over fifteen years old and obsolete or worn out. How many machines are built to take the bruising of novices for fifteen years? The replacement budgets for our Board and most other Boards will not replace major equipment over a twenty- or even a thirty-year period because much of the limited budget is used entirely on short-life items.

- The community colleges must refrain from setting up academic barriers that have no relevance to the trade or vocation. Secondary schools are not guiltless in this area, but there seems to be a tendency to expand the weakness at the college level. One course for a machine trade suggested the theory of logarithms as a minor part of the mathematics requirement. The use of logarithms may be needed - I am no judge - but I just cannot believe that the theory should be a reasonable requirement.

- There must be a commitment by government and labour representatives, businessmen, and educators at all levels that their personal feelings will be submerged to meet the challenge of



training excellent technicians and tradesmen so that our productivity can increase. Failure to do so will lead us further into inflation and unemployment.

## DISCUSSION

STEWART I'm going to ask Mr McVie from London to talk to us this morning on the role of high schools in vocational training and vocational counselling.

McVIE Thank you, Mr Stewart. When asked to prepare this paper I had to pretty well start from scratch. When I say I'd had very little experience, I guess it gives away the little secret that guidance people didn't have to have very much exposure. I'd been in guidance at the Ontario College of Education for a year but still felt very little relationship to industry in a direct sense. One of the things that I noticed quickly in a group of industrialists or commercial people was the readiness with which they could condemn the educational system in general terms.

I might say first that I use the term technical education here. It's common in the school system to distinguish between technical education, which machinists are considered to be a part of for example, and vocational education, which has in the past implied occupations for those with limited ability. There's a more marked difference in that area in Toronto than in London, perhaps, but there still is a break between technical and vocational which is artificial in a sense and more dependent upon our choice of students for the courses than on the content of the courses. For example, in Peel County, if you want to take auto body you have to be a vocational student with limited academic ability. If you're in London you can't take auto body unless you're above that category, because they won't offer it in the vocational school but in the technical school, so that you have to have a fairly high level of ability to take it. How anybody can defend those two positions logically is beyond me. I'm not going to try. I'm just saying that technical and vocational can have specific meanings in educational institutions. In this paper I've assumed that any training was vocational training. But you'll find I'm slipping back into the word technical training fairly often. There is a tendency, if you take a vocational training program and put it into a technical school, to call it a technical subject. Maybe that will further clarify the matter.

In Ontario, as in most of North America but even more so in Canada, there has been historically a feeling that technical education was a poor cousin, something you did if you could not do academic subjects. It was a feeling of social justice, I

guess, rather than educational considerations that led, in larger cities, where such students were more concentrated and there were no farms to keep them occupied, to the building of technical and commercial schools. I was in Ontario just one year, but long enough to recognize that "the greasers went down there". That feeling was common in Sault Ste Marie when I was there, and I have heard of it in other cities since.

That started to be tackled as a problem when the credit system came in. Now the credit system did a lot of bad things, but it did some very good things, and one of them was to mingle technical education and academic education and make it possible for the first time for students to pick up an option in a technical area without becoming technical students. In most areas it did not destroy the technical program, but in some it did. In some places they broke up every subject and said you must only take a single option. Of course, that can destroy training, but it didn't happen in London and in certain other centres.

In Ontario people have said that to go on to university you need five years of secondary training, referring to a group who are intellectually the elite, who should be able to learn that kind of program in about three years. At the same time, where we were training students for highly skilled occupations we felt that four years was the maximum in the vocational schools and even cut it down to two years. We've just started to offer some of our students four years of vocational school, and you'd be amazed at the number of academics who think that's disgusting and disgraceful, that we're wasting their time. Why should it take them that long to learn to plaster? But if you really want to create a machinist, it seems to me an awful lot harder to accomplish than to take a bright youngster and expect him to do graduate work in history. But that has not been the common view.

More five-year technical or technology courses have recently been introduced, but instead of producing master craftsmen we're tending to produce pre-engineering students.

Many people think technical education has now reached into the whole province. In fact county boards tended to build limited-function, composite schools. In Peel County, for example, it's impossible to get anything other than four basic shops unless you are in the heart of Mississauga. Apart from one school with about five or six shops, all the schools have four shop programs, none of which would exceed what we in London call junior composite, a level we consider gives courses only suitable to the first two years of secondary school. There is no school the equivalent of the technical schools in Toronto, Ottawa, Hamilton, or London in the whole region of Peel, including Mississauga, which is now the province's seventh largest city. Therefore, technical education usually refers to what the city schools can deliver rather than county schools. This merely reflects the fact that the senior technical schools were set up in the early stages in the cities, where the large numbers of students who could not reach the academic level were at that time located.

Industrial representatives know little more about what they need for the future than we as educators do. They know

they need welders now, today, and wonder why they haven't got them. They're stealing them madly from each other because General Motors suddenly decided they needed fifty, and because they pay a nice wage everybody else in the city is stripped. But ask them what they want for next week, next year, or if there's any other occupation they might need in the future or would have an interest in, and they find it very hard to say. Similarly, I found it very difficult to persuade them that they needed to be specific about their complaints and their needs. It's easy to say our courses aren't relevant to today's workshop. It's another to say exactly where they're not relevant. In other words, what kind of welding specifically are they talking about? Don't tell me that our welders aren't good enough - they're not good enough at what? We find that the type of welding has changed very drastically, but you get a group together and they don't tell you that. You have to work it out of them. They have not taken the time to analyse what it is they want from their employees at the beginning. What kind of an employee do they really want coming into their plant? What does that student really need to have mastered, as supposed to have covered?

There is a great problem trying to get industry to be specific. We have to work with them, force them to go on to the floor of their shops to find out what their workers are doing. Often they're represented by personnel people, or sometimes managers; sometimes we get as close to a workfloor as foremen; but too seldom do we go right to the fellow doing the job and ask him what he needs to know to do it. What does he do during the day? What activities are really involved in the job? Nobody who was there six years ago can tell you; they have to be there today, because it's changed that often and that completely.

Two or three thousand people in a large area is a very small need to be met by an educational trust over a number of years, so more knowledge in this field is doubly important. Because the numbers are small they can fluctuate very rapidly, and a school system set up in Ontario to produce two thousand people is very easily oversold; we'd not only be turning out too many teachers, but too many machinists and everything else.

We've had fewer problems in training for service occupations. The employment level is extremely high. It changes when self-service come into an area, as in gasoline retailing, but other than that it's much easier to keep up with and prepare people for. The knowledge of the skills is probably more widespread, and the level of acceptance, the level of understanding of who should go into it, of who wants to go into it, is probably greater.

We still haven't got a realistic attitude towards technical training. The Interface study, a huge study of the relations between colleges and the secondary schools, suggested that out of eight councils to deal with various aspects only one be concerned with business and technology. Is the major problem in industry, and with the kinds of students that the colleges are turning out, the English of those students? I know that problem is very apparent, but how much does it matter whether a machinist has agreement of the subject and predicate



in a letter when his job is to turn out a finely milled tube? English and mathematics, in other words, aren't the only things in the world. When we talk about the students not knowing them, what students are we talking about? We turn out students that, according to tests, are equal to or better than those of 1935. People who say "they used to be great and they aren't now" are wrong. We're talking about students who never did learn to communicate properly, are still not doing so, but are appearing in colleges because the colleges never existed before.

The attitude towards technical education is a real problem for me. I refer in my paper to one of our principals, who this summer compared the cost of education in our most complex secondary school, Beal Tech, which is known throughout Ontario, with that in a little academic school having one or two options, found it was more expensive, and decided we should close Beal Tech. Obviously it would save a lot of money. Of course he didn't carry it further and suggest that if you cut out all the technical courses at Beal Tech and put up some walls you could hold all the academic classes in that one school, close all those little academic schools, and save a great deal more money. They tend not to go the second mile.

When we're setting budgets we ought not to be horrified when a \$5000 technical machine comes up for replacement. We don't see that kind of expenditure for English, geography, or history, but we have to accept it as part of our obligation to society, not just to a few students in that particular classroom. I think more people in education now are sympathetic to technical education, but this prejudice won't be completely eliminated as long as we pretend it doesn't exist.

Another area is the self-protectionism of both the colleges and the secondary schools in looking at the job that's to be done. I think it's very unfortunate that at the time that the colleges were formed a greater effort wasn't made to rationalize who was going to do what and who could do it best. It would have been much easier then when job security wasn't at stake and restraint wasn't pushing budgets down. When you talk about it now, every teacher immediately thinks of layoffs. However there still does exist an overlap which is wasteful and could be corrected to some extent without dislocation of the staff or budget. We somehow have to get the groups working together with an open mind to accomplish that.

I think the colleges have to be on guard against trying to become junior universities - and I know that's been said from the time they were formed. They have to maintain the standards that are essential to their graduates not build up new academic hurdles for craftsmen to go through. I refer in my paper to a proposed college course in which it was suggested a millwright should know most of theorems in plane geometry and understand the theory of logarithms. It turned out those aspects of the course were rejected. The college person responsible for presenting the course said he agreed with me that they were inappropriate, but they had been put in because of the pressure from the mathematics department! I know that what that kind of pressure is, and I'm not being critical because it happens in every one of our schools as well. It's something that we have



to be alert to, because it can be pushed in by faculties who desire to upgrade their own specialty. If you look at what the electrical unions have set up as a requirement for their occupation, it's beyond belief. They have nothing to do with being an electrician. They must have to do with keeping the electricians' union selective, keeping out bodies and raising the supposed educational level of members. I can't think of an educational rationale. But they're no different than any other group; they did it because they're human, not because they're a union. Every time there's an upgrading of teachers, everybody's "grandfathered": people without the degrees are all considered to have degrees; the people who didn't take principal's training were all considered to have done so. The same thing is done in every field of endeavour.

Relevance is always a problem not only in technical courses but in all courses. We just went through a whole year of developing a relevant core curriculum in English that would tell us what really was important to the growth of English skills that would lead a student to be able to write properly and read properly at the end of a schooling period. We haven't done that in enough technical subject. We have just agreed to do it for one technical course. All the items in that curriculum will go to the shops and have the content checked against what is real in London; then we'll go within 80 per cent of that. In other words, what's common to 80 per cent of the industries would be included in the course, and the rest would be questioned, not removed, but questioned whether it should be left to the particular industry or not. I think that's a step in the right direction. If we can get it done quickly and successfully, we have an opportunity to take all courses and do the same thing with them. If we can do that, we can update courses annually or every two years, as opposed to what is now about a five-year process. Those of you connected with industry will recognize that five years is too long to go without an item-by-item check of a content of a course.

Teacher aging will make this more important, because over the ten-year period when these schools were being built we were hiring people right out of the field all the time and had a constant flow of fresh information. Now we're not hiring them any more, and the teachers are getting older. If we're going to set up on-the-job training for students, the teachers need to get into the shop at the same time their students do to see what is really being done.

The students themselves want white collar rather than blue collar work. I don't think it's laziness. I think it is part of the picture they were given through the strong advertising campaign of the federal-provincial government. It was pushed. Right now the middle-class and the employed lower class have a dream for their children. So do educators; during education week our theme was "stay in school", and what kind of school did we picture? We pictured a college with ivy growing down it. I never saw a shot of "stay in school" with a picture of the shops or a master craftsman emerging. It was an academic program we were pushing.

I think we need to do an equally good job of advertising the rewards and the need for technical education, and I don't

think it's hard to do so on a straight financial basis if we want to do it that way. But there are other rewards. I remember an accountant in Toronto when I was a student; I showed him how to repair a window and put in one little pane of glass. The putty was a mess - it was all over the place - but that pane of glass was his. He got more satisfaction out of that messy pane of glass than he did out of doing the books of five companies. So there is a satisfaction to that kind of thing.

Guidance services, having heard some of the confusion that exists about various forms of training from apprenticeships to employer-sponsored to college to a variety of private schools and so on, my sympathies for the guidance department have grown. There isn't a nice, clear package to give people. There's a lot of confusion about what you get if you do this for four years and what it will mean to you three years later. But guidance did move away from that approach for a number of years. The theory seemed to be that it wasn't much use knowing about careers if you were too mixed up to enjoy them. There was a switch to psychology in the training of counsellors, a greater emphasis on personal adjustment, less on telling people how they could get ahead in the world. Recently we've had another turnaround in guidance services. The government has started to provide a computer service to tell students where and how each occupation can be trained for and what the predicted needs are. The provincial government has moved into vocational and interest testing as well, so that they are now providing a fairly complex service to individual students and will pay school boards to provide this service to their students.

Emphasis has shifted to vocational as opposed to personal guidance. Our school system is also stressing the role of the teachers themselves in using their expertise in guiding students. We want to get it out of the little guidance office with three people and get all the teachers involved, because the combined knowledge of the staff, particularly in a technical school, is far beyond that of the guidance department alone.

To summarize: first, we need a minimum core program in the technical and vocational schools that teachers and students can handle in a given period of time. Second, there's a need to extend modular training units to all aspects of training. Third, a major advertising program is needed to improve the image of technical and vocational education. Fourth, the problem of expensive equipment replacement must be faced. Fifth, the community colleges must refrain from setting up academic barriers that have no relevance to the trade or vocation. And sixth, there must be a commitment by government, labour, business, and educators to the training of excellent technicians and tradesmen.

J.A. STEWART Thank you, Mr McVie. And now to get a little different slant on this subject, I'll ask David Winch for his views.

D.M. WINCH When first approached to act as discussant on this paper I welcomed the opportunity because I've always wondered just what the role of the high schools was in vocational

training. So I read the paper and was surprised to find absolutely no discussion of whether the high school should have a role to play in vocational training.

I think I know the role the schools should play. But education and manpower training are two different things. Education is essentially concerned, as we all know, with development of the mind, development of the person. It focuses on literacy in a very broad sense, because of the advantages of a literate population for society as a whole; that is where the social interest comes in. And we have learned from experience that education will not be done by the masses unless the state does it, and does it compulsorily.

But where the emphasis on education is always on understanding, the whole *raison d'être* of manpower training is its relevance to a job. If it produces anything, it produces privately owned and marketable human capital. It's a very private matter, not a question of the social interest directly. And we find that investment in such training can be handled in the private sector. We have a larger number of secretarial schools offering typing training in this country than we do private schools offering education. We've got various forms of on-the-job training in industry, apprenticeships and so on. But it's not going to be as viable for industry to offer manpower training itself if so much of the funds are being siphoned off into a state system that promises to do the job. I can understand businessmen not proceeding with manpower training as extensively themselves when they had to finance a school system that is supposed to do it for them. So the role of manpower vocational training gives rise to two questions: who should pay for it, and who should actually do it? The implicit answer to the first question throughout Mr McVie's paper is that the employer should pay. The training in question is very valuable to the student, potentially very valuable to the employer, and commensurately expensive. As a result of it the students' productivity will increase and the employers' production will increase. Their profits, their wages, will increase. But why as a taxpayer I should foot the bill is a question which is not answered.

Should this training be done in the high schools? Or should we get the academic side of the high schools over somewhat faster for students pursuing this route, permit them to move into industry, and leave the funds with industry to do the training? That is, after all, the alternative. If we look at the problems the high schools face as they were outlined by Mr McVie we'd have very serious cause for thought. He tells us that the teachers themselves are out of touch with the relevant syllabus and their equipment is obsolete, from which I conclude that the job is not going to be done very well. Then he goes on to tell us about the small centres and the limited enrolment courses which are not viable in an age of declining enrolment. That means of course that the highly specialized and less popular options are going to be dropped first, and the conclusion in my mind is that the schools can cope only with the established, large-volume trades, the popular courses for which they can maintain a viable enrolment. In this country that means the big, well-established, well-known industries are



going to have their early manpower training done, and done poorly, in the high schools at the expense of the taxpayer, whereas the young, vibrant, and specialized industries are not going to get that service, although they're going to foot the bill. They're going to be left to do their own training. I wonder whether this can be justified?

Furthermore, his paper suggested that the schools themselves admit that they often don't know what they ought to be doing. When he observes that jobs and technologies tend to change rapidly, and methods of projecting needs are "at kindergarten level", I conclude that it simply is not efficient to separate training for the job from the site of the job itself.

Now, suppose we left vocational training to the industrial process through training schools, apprenticeships, and so on and took it out of the high school environment. What would we find? Mr McVie's paper implies that we would find modern techniques and current problems, because the training, since it's done on the job, would have to be up-to-date. Both the teacher and the student would be getting on-the-job experience. The up-to-date equipment would be there, and it would be affordable, because there is a product that is saleable. Granted, the productivity of the early apprentice may be low while he's learning, but there is output. He learns in the right environment, on modern equipment, with a teacher who is current in his methods. There is, of course, a quite distinct question of the role of government in financing such training. I could see that handled through various appropriate tax deduction schemes, if only to write off the cost of manpower against taxes. We can play with that scheme to put in the taxpayers' contributions, but it would be spread evenly. It means that those industries that are new, vibrant, and specialized could get their training financed in part through tax deductions, as well as the old and well-established industries. What is the obligation of government? Mr McVie says the responsibility rests with government and industry to boost the high school system, with help, money, and advertising. The alternative, and it's one we should consider, is for government and the school system simply to get out of the way, free up the tax dollars, and leave industry to train its workers.

J.A. STEWART Thank you, David. The floor is now open for discussion.

R.B. McAUSLAND I agree wholeheartedly with David. And others, of course, should get out of the schools too. I think doctors should be trained by other doctors, similarly lawyers, similarly engineers, and probably economists; and we certainly don't need economists teaching teacher economists. Why don't they just go and work? You're absolutely right.

J. SWEENEY I'd like to refer Professor Winch to a very recent study done by Coopers, Lybrand at the request of the Ministry which clearly pointed out that the so-called teaching expertise in industry itself was pathetically poor. The willingness of industry to commit their best people to work with their trainees, to commit their best equipment to training, was



not very good. There are lot of problems with training in secondary schools, but I'm not convinced that dumping it out of the secondary schools into industry is the answer either. We have already found that industry will simply use, in the worst sense of the word, those trainees totally for their own benefit. They'll get out of them what's to their own advantage, giving them the least possible to meet their training needs.

M.D. McVIE When it comes to training, secondary schools are as efficient as any other group. The people selected in industry to do training would face exactly the same problems our teachers face, unless they're rotated in and out of the shops on a weekly basis, and industry doesn't do that any more than we do. If they get somebody in the training section, they stay in the training section, so that the problem of relevance remains.

On the other hand I don't know that we should do everything in the high school either. I proposed to my board this year that several courses that were particularly expensive should be moved to the colleges. And I think there are college courses that would be better at the elementary level. But simply move the students out who decided on a skilled trade at an early stage would be going back to the 1920s when we had a very highly structured social system, when if you couldn't get through an academic course you were a second-rate citizen, getting a diploma at the end of grade 9 and for the rest of your life being condemned to a second-rate level of involvement in society. The only thing that saved a great many people from the twenties and thirties was the war, the fact that they got into it and when they came out were able to use veterans' credit to get back into the academic stream.

J.R. KINLEY I tend to agree with Mr Winch as well, but I think possibly his distinctions are just too sharply drawn. Manpower training is not strictly an individual concern any more; it's a matter of great social concern, just as being able to handle English is a social concern. The whole program of government investment in manpower training over the past twenty years in Canada reflects the fact that social consequences arise if we do not have people trained to a fairly reasonable level.

There is a strong feeling that more training should be done in industry in this country, there should be a better mix of institutional and on-the-job training. Of the people who go into the labour force from high school, 60 per cent have nothing to take with them to get a job.

A.M. THOMAS Our objective is the development of a great variety of skilled workers in a situation in which it is clear that not only will they develop skills once, but they will continue to develop them and in fact, often change them during their lifetime. Therefore I want to look at the secondary schools in the context of skilled workers of all ages, and of the particular needs that might better be satisfied by secondary schools and school boards than by other institutions.

Administrative efficiency does not always match the population's view of what educational institution is most appropriate to them. Once they leave the area of compulsory

education and are making choices about the career lines open to them and what institutions are appropriate, by and large people choose on the basis of their most recent educational experience. If they have not finished high school, they will tend to look to the school boards for what they need; if the school board doesn't provide it, they rarely look elsewhere. Though it may be rational for a college to provide a course rather than a school board, if the school board does not provide it many people won't pursue the matter further.

I suggest that we are in for a battle for public education very much like the battle involved in its founding, because those groups that have traditionally supported it now have less contact with it. I understand that in North York less than 44 per cent of the taxpayers have children in school. If the schools can make their technical education available to more than children, if we see a need for technical and vocational education within the adult population which the secondary schools can supply, we can go a long way towards meeting that political issue and at the same time develop a favourable attitude to technical skills among the general population.

D.M. WINCH While I was making the sharply drawn distinction between high school training and training in industry, I was trying to focus on certain questions. Granted the employer probably does not do the job terribly well or very effectively, simply because he's producing a private piece of human capital in the employee and has no mechanism of indenture by which he can retain him to exploit it, so it's not worth his while investing fully in it. Granted the employee or potential employee does not have enough money to finance his own education, and taxpayers' funds are directed to the high schools and the community colleges. The questions I think we have to address are these: How far is it a social responsibility rather than a private one? And whatever part of the bill the taxpayer is going to foot, how do we make sure it is appropriately directed? Should it be pumped into high schools, or into community colleges? How far, through tax concessions, student grants, loans, and so on should it be funded into training at different level? How far does an employer's responsibility extend? Should we allow the employer to indenture labour long enough to get the payoff? Should we be funding training by grants, scholarships, student loans, or something else so that the apprentice can afford a decent training somewhere? How much of it is the taxpayers' bill, and where are those funds most usefully and most efficiently directed? These were the questions I was trying to ask.

W.D. McVIE For a program at the secondary level we're talking \$2,000 in round figures for an academic student and about \$3,000 for a technical student. My son used about three times that from a private employer for a six-week company course. Although it's 50 per cent more expensive for a technical student than an academic, it's still the cheapest form of education available, and it's a lot cheaper than giving tax discounts to industry to do the job. When costs reach \$3,000 and \$3,500 per student, I'm saying that should be a college

program, because I'm not looking for giant new funds at the secondary level from government.

J.A. STEWART We have in the room representatives from private schools, Mr Shaw and Mr Dykstra. I'd like Mr Dykstra to tell us how his school fits into our society.

P. DYKSTRA I am with a private institute that trains electronic technicians and technologists. We take a young man out of high school and give him a good electronics training or the skills so that he can readily step into industry and get a job. When the student starts in school, our objective is to try and keep him there, because if he's not there, we're out of business. When the student graduates, if he is unable to find a job, again it won't be long before we are not there. We are in the educational business, and that's something that I think a lot of educators find difficult to understand.

We endeavour to go into high schools and make students and educators aware that we exist and what our concept of education is. We try to do a career awareness program from industry's point of view (DeVry is part of Bell & Howell, a very large company). We use a film on electronics, our area of expertise, which is not designed to sell students on DeVry, or to tell every student that this is a career for him. It simply depicts six or seven different people working in different aspects of electronics. We hope it will trigger some kind of a reaction, either that the area is appealing or that it is not. Some of those students later on get in touch with DeVry or pursue electronics in other areas.

We find great difficulty in getting this message across in the schools. There's a reluctance to allow private enterprise into the schools, though this is getting much less in the last two years, perhaps through a changing stance in guidance departments. Possibly we have difficulty going into the schools because we're approaching it as a part of industry. Perhaps what we should be doing instead is getting skilled people in various areas to come into the schools and tell young people that way what's going on in industry. Most young people in my experience have very little understanding of what really is going on in industry. Many of them make career choices based on very inadequate information. When we do go into schools with our program, the students are really hungry for this kind of information. Every time I've been in a school and put on a presentation it's amazing - students have followed me out to the parking lot afterwards wanting me to tell more about it.

Our survival, as I said, depends on our being able to fulfil a particular need in making sure that a student can make his way in industry after he graduates. We get information from our graduate placement office. First of all, we aggressively recruit students to come to our school; once they're in school we do everything in our power to try to keep them there. And we try to make them successful. When they graduate we aggressively market those graduates back to industry, making industry aware of what our programs are about. At that point we get feedback from industry about exactly what they are looking for. We are constantly changing our programs to meet



the needs of industry. At the time we are placing students we are best situated to get this information.

R. ADAMS David Winch argued earlier that industry would be unwilling to train people, giving them additional human capital which they could carry with them to other organizations, if the company didn't have any way of keeping it with them. That may make perfect economic sense. The problem is that it doesn't reflect what actually happens. Industry spends an immense amount of money training people. I'd like to hear from Procter and Gamble and IBM and some of the other employers around the table why they engage in this terribly uneconomic behaviour.

A. BELESSIOTIS It's not uneconomic at all. Sopecific human capital is an investment shared by the employer and the employee.

R. ADAMS There's a lot of training going on in industry, but we don't know how much or how general or specific it is. The data simply are not available. It would be useful if industry got together and told us, you know, what they are doing and why, what kind of problems they're running into, what kind of payoff they're receiving from the training they're currently doing, and where their training would mesh with that of educational institutions. What is the relation between what's done internally within industry and what's done in our educational system?

L.H. HARLEY IBM does a great deal of training. Training is a catch-all word that applies to many different things. Obviously, we are engaged in specific skill training. A service technician, to be current on maintaining computer hardware, must have a lot of very specific training. Another form of training, mentioned earlier here in connection with lifestyles, is training for personal growth and development. Our company engages in that too, internally as well as through educational leaves and exchange programs with schools and by tuition refund programs. Still another type of training is simply for the sake of motivation. It's nice to go to a program for a day and have someone talk about something that may be related to business or may be totally unrelated. The type of motivation you bring back to the job from that experience has an influence on internal personal growth. Perhaps the productivity effect could be measured. We are a company that tries to measure a great many things, but we tend to measure types of training more by the activities than by the results. Someone will have five or ten student days a year as a training objective, and the selection of those days may be totally up to the individual or to the management group. And as long as they've accomplished the objective of having the training days, we're satisfied, whatever the productivity outcome. Since we're a very successful company it seems to work.

There are also advantages in co-operative education programs. We deal with these a great deal and have seen in the last year or two in the Toronto area various work-experience programs offered in high schools. It's a very practical way



that industry can contribute to the school and perhaps help provide some on-the-job training, with the theory coming from the school and the practical aspect from industry. More organization is needed of course. It tends to be haphazard, with different schools using different formats.

High schools obviously should give people some exposure to work in various careers. I would hate to see that role ever given to industry because we have too much of a vested interest in what we'd like everyone to become. We'd love everyone to be technologists. The schools have a vital role in introducing students to various options and counselling them on their strengths and weaknesses, on the other hand industry certainly has a role in doing on-the-job training.

B. McAUSLAND I think all of the things Miss Harley said could be repeated for any large company. On the other hand it is not easy to interest small companies in doing training. The amount of investment in training seems directly proportional to company's size and share of the market. IBM or Bell do a lot. But a small tool and die maker in Windsor, say, who is fighting tooth and nail with hundreds of competitors cannot make that investment. He will recognize that he must invest in equipment for the maintenance of his machinery and plant. Yet he is not prepared, unfortunately, to reinvest his profit in the maintenance of the human capital. Only last week I met with three tool and die companies, and they said, "you know you're asking a lot of us" (I was asking for a co-operative endeavour). "We have fought each other; we've only been able in the last couple of years to have lunch like this together; we fight for the market and keep our secrets and tricks to ourselves. We are by nature competitive tigers."

So the issue is what strategy one uses when the share of the market in a particular industry is so subdivided and the attitudes of competitiveness so deeply implanted that co-operation can't be realized. Does one simply give up and decide, in the benefit of common interest, since we can't let these industries go down the drain, that there is no alternative to making the schools, colleges, and universities do what they can?

C. AHRENS We seem to be concerned about what the employer needs and what industry needs, but are we really taking into consideration the student? Are we equipping the student to make the right decisions?

Our school system has been based on content. We make sure that student knows all his Latin, French, English, Math, and history. You could learn almost anything and employers were so anxious to get bodies that they weren't concerned what you really knew or wanted to be and, because they had the dollars they could keep you around until eventually you decided.

Now you're either productive or you're not with the industry. But we in the educational system haven't changed; we're still content-oriented. This year we tried an experiment, giving two thousand unemployed people in Ontario a meagre sixty-hour course in choosing a career and job search. Of a control group, 37 per cent got jobs, but 57 per cent of the

people on the course got jobs in the same period of time. So there was some success.

J. SWEENEY On the question of guidance services or counselling at the secondary school level, one of the problems is that the kinds of people involved as counsellors have usually come up through a stream of experience that doesn't assist them in guiding people in technical training. Maybe we have deliberately to incorporate into guidance counselling people who have various kinds of backgrounds to be able to relate to students with various kinds of aspirations. Secondly, the number of people on a secondary school staff allocated to guidance counselling is pathetically small. In many high schools it's a ratio of about one to three hundred or less. Thirdly, if guidance counsellors have to spend 99 per cent of their time in the schools, they are never going to be able to bring themselves up to date on what the needs are. We have to allow them to get out into business and industry for a very large percentage of their time, finding out exactly what's going on, what the needs and deficiencies are, how their students are making out, and what kinds of changes have to be made. They should then return to the school and incorporate the changes needed not only into the guidance of students but also to a certain extent into the curriculum of the school.

W.D. McVIE We are now moving back to getting all of the teachers involved in guidance, because all you can give when you've got one to five hundred is routine advice. Technical advice needs to come from the technical teachers, and during the credit system they tended to be withdrawn. They drew out of looking after individual students and went to just teaching large numbers of students.

N.M MELTZ In Sweden a program, even in grade 8 in the primary schools, allows students to spend three weeks in whatever firm they want. They choose the firm, and the three weeks is part of their regular program, the idea being that they gain some understanding of the nature of work. It helps in the selection of careers. There's no reason why this couldn't be considered in the high schools, in the universities, and in the more market-oriented colleges.

R.F. GIROUX About the cost of career-type programs in high schools: of the students who select careers and go through such programs, only one in four pursues that career. So there's a 75 per cent loss of training. Obviously the career guidance offered in a school is critical to the investment, and too often we place the entire responsibility on the guidance counsellor. The whole impact of career guidance needs a new look. We have to consider the kind of experiences we give the students, not in grade 12 or in grade 9, but all through the system in visits to the industry, speakers from industry, films, tours, and so on. What I'm suggesting is a career-development approach.

P. DAWSON Industry is looking for alternatives because the training of skilled manpower is a critical thing for us. Our survival depends on having sufficient skilled people as part of our work force. One of the initiatives my company has is in the EST program discussed yesterday. We have devised a system which is modular, self-paced, and based on performance instead of time. It's an apprenticeship system which not only suits the company but is registered and recognized by Ontario, so that the graduate has an apprenticeship certificate and is mobile. We hope he would stay, but if not at least we know the man is qualified not only to the company standard but to the provincial standard as well. It is our hope and expectation, and part of the training schedule states, that we expect that a person with no previous skill or experience in the trade will graduate in two years, or whatever further time it takes, not exceeding four years. So we're getting away from the time factor of prior apprenticeship with no dilution in the trade that we know of from talking to journeymen. This program is equivalent to any other type of apprenticeship except it's done in a different way.

My company, like IBM, is concerned with the individual as well as with getting the job done. We run a program of educational leave that gives the opportunity to employees from the hourly clerical or managerial ranks to attend a developing communications skill seminar, out of plant, held in the college in Hamilton on company time for three days. All of the work can be done within the normal work period, and this has been picked up by 98 per cent of all employees in the Hamilton factory. I honestly couldn't give you a measure of what the company gains from this, and that was never the purpose. But the feedback is tremendous about what they have got out of it as individuals. We are very happy about that because if there is some spinoff intangible benefit that accrues to the company, that's the payoff.

Yesterday there was a lot of discussion about the community probably knowing more about what was needed in terms of skilled training than any other segment of society. I agree with that, and I think that the creation of the Industrial Training Advisory Committee is a step in the right direction. In Hamilton we've had one for about four years now. We have been able to analyse the needs for skilled training in the community, develop some solutions, and mount most of them in co-operation with the college at no cost to the members involved, and this is business, labour, and the educational community. Just recently as another alternative the college has started a co-op internship program, which is another word for apprenticeship as a post-secondary alternative for a young person coming out of school with say grade 12 who tries all summer and can't find an apprenticeship with industry. He can now go to the college, pay the fees, and get involved in a co-operative program of in-college training and work experience with the local industry and in three years graduate at the equivalent of a journeyman level, again with the Ontario papers.

Another interesting development just beginning is an organization in the Hamilton-Wentworth area called the Industry



Education Council. It has been supported at the chief executive officer level of the four major companies in Hamilton, and the idea is to bridge the gap for the student between school and the world of work. Guidance is obviously a very big part of this, and so is curriculum development.

We should get as much of the responsibility for improvement as possible back into the community. The community sees the province as too big, and I think Canada as a whole is too big to handle this. Put the responsibility back into the community where it really lies. In many cases the community created its own problem over the years. If the community is given the responsibility and resources to do the job, I don't think it will cost a lot of money to the taxpayer. I'm a firm believer in volunteerism. Industry can talk to the high school boards and describe the kind of curriculum needed. If we can go modular, which I agree is the way to go, it could in fact begin in high school with a student getting credit. If it were continued in the college the credits are already there; if the student went right into industry, into a modular program of course, the credit is also granted. This would allow a young person to gain some credits in high school, go right into industry, and maybe within two and a half to three years graduate at the journeyman level. This is the optimization of all our resources.



## Vocational Training For Women: Problems and Prospects

Wood

In doing the research for this paper I found a great lack of specific material. It appears that almost all material available of US or European origin, surprisingly, is dated 1975 - International Women's Year.

For the purposes of this paper, vocational training is defined as training which prepares people for specific jobs in the work force; excluded from this are jobs currently described as professions. Although the definition is general, most of my remarks will address the non-traditional, vocational training opportunities, that is, areas in which the jobs have been and are still being filled by males.

In 1975 in the United States, 55 per cent of all vocational enrolments were women<sup>1</sup>; of this number over 50 per cent were enrolled in homemaking courses, 30 per cent in secretarial, clerical, or other office occupations, and 14 per cent were scattered in courses oriented towards other traditional female areas. A mere 8 per cent were being prepared to work in fields traditionally dominated by men.<sup>2</sup> In Ontario at the present the picture is much the same. To be more specific, in the area of apprenticeship, which would be a major vehicle for changing such a situation, in the fiscal year 1976-77, 8,854 apprentices entered trades; eighty-one (or less than 1 per

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Allen, Deena B., "Vocational Education: Separate but not Equal". Presented at Phi Delta Kappa Symposium (Education: Past, Present and Future - University of Minnesota, Minneapolis), 26 April 1975

Steiger, JoAnn H. and Sara Cooper, The Vocational Preparation of Women. Report and Recommendations of the Secretary's Advisory Committee on the Rights and Responsibilities of Women. Department of Health, Education and Welfare, July 1975

cent) were women who entered into trades other than hair-dressing.

This area of vocational training seems the hardest to change. In the professions, change is happening, albeit slowly. In 1971-2 in law, women were 14.9 per cent of total enrolments in Canada, and in 1976-7 29.9 per cent. In commerce and business administration in 1971-2, women were 9.6 per cent of total enrolments, which rose to 23.2 per cent in 1976-7.<sup>3</sup> Why is change so slow in the area of vocational training? Even in a country like Sweden with proportionately more women in the labour force than any other OECD country (70 per cent of all women between sixteen and sixty-four)<sup>4</sup> the same patterns exist. The pattern has broad historical roots at the base of which is the fact the women's role as wage-earners has been a transference into the workplace of the traditional "helping", "assistant" role held in the family. Thus, in the industrial revolution women were employed in large numbers in repetitive, assistant tasks to machinery, roles which required little training or expertise. By 1860 in the United States women constituted 20 per cent of the nation's factory force; in the manufacture of boots and shoes they were 40 per cent and in cotton textiles 60 per cent.<sup>5</sup> However, when it came to providing formal vocational training in the later nineteenth century, in these areas women were not given the same opportunities as men. Although this was probably largely due to the fact that a woman was bearing children at the time a man was receiving training for work, it is also obviously a strong statement about women's role in a male-dominated society.

In setting up vocational/technical schools in the early twentieth century, the pattern was compounded by often physically separating the buildings which trained boys for work and

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3 Women in the Labour Force, Facts and Figures, 1976 Edition, Part III. Labour Canada, 21-2

4 Rollen, Berit, "Gently Towards Equality", Working Life in Sweden, No. 5, June 1978, 2

5 Steiger and Cooper, The Vocational Preparation of Women

those which prepared women. As new industries and technology developed women tended to move into the lower-skill areas demanding fairly short periods of training - clerical, secretarial, component assembly, etc. Women gained increasing access to general education which prepared them very well to carry out these "helper" roles in the increasingly sophisticated industrial and business scene, but in vocational training, as stated earlier, they were still being prepared for jobs as housewives and mothers.

Of course there are noticeable exceptions to this pattern. During both world wars women were given a legitimate role in meeting the war effort and proved equal to the task by doing any jobs required. Similarly, in both Russia and China women have been given a legitimate role in building the new society as workers as well as mothers. The continuing dilemma for women in the West, however, is that their role is ambiguous. They now have control over their motherhood functions and have access to greater levels of education, but there is an ambivalence about their access to the world of work, especially in the skilled trades. This ambivalence is present just as strongly in women as in men.

Where are we today in redressing the pattern of the past? Not very far, as can be seen from the steps needed to get a job in the non-traditional vocational area.

#### VOCATIONAL TRAINING IN SCHOOLS

Girls are segregated into certain types of vocational training. This is done, it seems, quite deliberately, or through lack of information. Even today, Ministry of Colleges and University staff in Ontario who go out to speak to school children about opportunities in apprenticeships report that they often have to insist on the participation of girls as well as boys in these informational sessions. A study of career guidance material in the United States in 1975-6 found sex-role stereotyping in all post-1970 high school career guidance

material. Another study pointed out that instructors and instruction in the non-traditional vocational programs are very sex-stereotyped.<sup>6</sup> The lack of female instructors and other female role models acts as a positive deterrent to girls who might have wanted to enter such non-traditional areas. In fact, evidence from Germany and Britain indicates that the lack of female role models in the administration of our education system in general is a critical factor in continuing the traditional socialization of girls.<sup>7</sup> Males administer the system and control policy, while females "assist" by facilitating the teaching process. Thus in the formative years, girl's vocational opportunities are severely limited, and this limitation continues into the post-secondary education and the workplace.

#### ACCESS TO VOCATIONAL TRAINING OPPORTUNITIES (POST-SECONDARY AND IN THE WORKPLACE)

There are many inhibiting factors in this area. Although all the barriers outlined below apply to both post-secondary programs and on-the-job training programs, they are more common in the latter, where change is the slowest to come.

#### Counselling

Very often this is "counselling out" rather than "in" for women. The counselling staff in non-traditional vocational jobs is usually male. To be a counsellor in the Industrial Training Branch of the provincial Ministry of Colleges and

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6 Vetter, Louise and others, Career Guidance Materials: Implications for Women, Career Development, Research and Development Series No. 97. Ohio State University, Columbus, Center for Vocational and Technical Education

7 Shafer, Susanne M., "The Socialization of Girls in the Secondary Schools of England and the Two Germanies". World Congress of Comparative Education Societies, 1974



Universities currently demands journeyman experience. Even with the best of intentions, it is very difficult for men brought up in a traditional male area to change their attitudes and welcome women. These counsellors tend to overemphasize the problems of entering non-traditional training opportunities.

### Test batteries

Most of these were developed only on male data. The Minnesota Vocational Interest Bank, the only interest-inventory designed specifically for non-professional occupations, offer only male scales.<sup>8</sup> The screening tests used by major manufacturing companies have, as far as I can determine, not been screened for sex bias.

### Job-specific requirements

Although mining is the only occupation from which women are specifically banned, the height and weight requirements for many jobs in the non-traditional areas effectively exclude them. Little effort has been made to validate such requirements, and in cases of labour shortage, technological advances have substituted for previously absolute requirements. This is perhaps less of a significant factor than the previous two. In the United States where height and weight requirements have been retained for firemen, positive action was taken by the union to ensure that minorities and women were given special help to enter the training program.<sup>9</sup>

### Union hiring

In situations where the union actually hires or has veto power, there are strong biases at work. Unionism in the

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<sup>8</sup> Steiger and Cooper, The Vocational Preparation of Women

<sup>9</sup> Brown, Stephen, Article on Firemen's Program, Worklife, July 1976, US Department of Labor

nineteenth century lobbied for the protection of females and children, cutting their work hours and restricting their access to certain types of employment. This was probably done out of the very best of intentions, but its after-effect has made unions less than progressive in encouraging women in non-traditional skilled training opportunities. The low representation of women in unions has compounded this and given them little voice in insisting on better opportunities for women. In Sweden where the majority of the workforce is unionized, equal pay and equal opportunity clauses are written into contracts.

#### Age limitations

Although there are no absolute age limits to entry into most vocational training opportunities, an effective age limit does exist. A young boy will find it easier to enter an apprenticeship, for example, than a man of thirty-five. A large number of women do not seriously begin to consider gainful careers until they are in their late twenties or early thirties. Most of the period before this has been spent in working through their early socialization process, which demanded that first and foremost they be wives and mothers. It is very difficult for the male employer to comprehend that a woman can be a serious candidate for a training position at thirty.

#### Lack of information

Girls, as has been pointed out, do not have access to information about other than traditional vocational training opportunities in the school system, and this carries over to the mature woman. Very often information about skilled training opportunities is available through an informal network. The uncle tells the father who tells the son that such and such company needs a welder. Women are excluded from this network.

## Support systems on the job and in the program

If a woman actually gains access to a skilled training opportunity of a non-traditional kind, she can be subject to a great many additional problems. These range from actual sabotage by fellow workers to sexual harassment. Even her female friends outside the job probably will not give her a lot of support.

All these barriers exist in the present situation for women wishing to enter non-traditional vocational training opportunities, but it must be recognized also that barriers exist within women themselves. It is often stated that women simply do not apply for such opportunities. In many cases this is true. There is a serious concern on the part of many women that they will lose their femininity: who really wants a welder as a mother or a crane-driver as a girlfriend? The length of the average skilled training program seems to deter many women. Their commitment to the labour force in general is more tenuous than males; they seem to want to be in it and out of it. Of all income-earning women in Sweden, 45 per cent work part-time (1st quarter 1977 statistics)<sup>10</sup>. Women always have the legitimate alternative role of being mothers. In addition, they are now trying to "make it" in the work force when many traditional values about work are being questioned by males. Do women really want the ulcers, heart attacks, and industrial success which seem to come with being permanent members of the work force?

All this is a constant irritation to many feminists. However, many feminists are middle-class women who themselves are not involved in non-traditional skilled jobs.

As if these barriers are not enough, there are a number of structural factors at work in the economy in Canada at this particular time.

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10 Equality in the Labour Market Statistics. Swedish National Labour Market Board, September 1977

## Unemployment

The huge increase in female participation in the work force, rising from 24 per cent in 1951 to 40 in 1973<sup>11</sup> (with a projection into 1980 of 47.4<sup>12</sup>) has been cited as one of the causes of unemployment, together with the results of the post-war baby boom. The current unemployment situation therefore has a double deterrent effect; not only does it make it more difficult to find a job and therefore discourage adventurous behaviour in "trying out" a non-traditional job, but it again brings into question the role of women in the work force and can generate guilty feelings in certain women. These guilty feelings are not assuaged when wives of unemployed men are quoted in the newspapers denouncing their working sisters.

In such times as these, many women opt out of the work force or move to part-time work. Economists are sometimes heard to praise this "buffer" in the system, where large numbers of workers can be brought in and out of the work force to meet the needs of the economy. Economic planners, I suppose, are loath to address the implications of the fact that women are in the work force to stay. The implications are certainly startling. To quote a Swedish government report: "The Employment Commission demonstrated that in order to bring the national male and female participation rates up to the present level in the countries where they are highest for the respective sexes, one would have to create an additional 380,000 jobs. And if female activity rates were equal to those of men, the number of additional jobs required would rise to 600,000."<sup>13</sup>

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11 Canadian Work Values. Department of Manpower and Immigration, Strategic Planning and Research, 1973, 50

12 Women in the Labour Force, Facts and Figures, 1978 Edition, Part III, 29

13 Equality in the Labour Market Statistics



## Growth sectors

When female participation roles were increasing the growth sectors were in the service industries, and this continues to be so. These are traditional job-opportunity areas for women, the so-called pink-collar ghettos. Whereas job opportunities are increasing in the traditionally male areas - agriculture, forestry, mining and manufacturing - they are increasing at a slower rate. One Ontario study concludes that "the significance is very clear. Ontario must find a viable way to accelerate its manufacturing far beyond Treasury's expectations; the education and training sectors must prepare much larger proportions of males to take jobs now held mainly by females; males must be willing to take on such jobs; and employers must recruit increasing proportions of males to perform the types of work now carried out mainly by females." Hardly cheering news for women!

## Decrease in wage differentials between skilled and unskilled jobs

At a time when women may want to consider other career options, there is a trend towards decreasing wage differentials between skilled and unskilled jobs. This appears to be deterring boys from entering skilled training in Europe. It is a factor to be considered, but perhaps not a major one for women since the wage differential between skilled jobs and their traditional job options is still big enough to make the extra training time worthwhile.

## Immigration policy and its effect on skilled training

Canada has relied more on immigration to provide its skilled workers than on training them. A recent federal study showed that the average age of a journeyman in Ontario was

forty-five and that his ethnic origin was European. Recent statements from the premier and the former treasurer have indicated that more needs to be done in the area of skill training. Training for the job market, however, is a federal responsibility, and the province puts very little money into this. The tension created by this division may further complicate the formulation of effective policy in this area.<sup>14</sup>

Given the multiplicity of factors at work in the area of vocational training for women, what are the prospects? At first sight they do not seem bright. Canada has chosen to follow a voluntary route on equal opportunities for women. Whereas this may have paid off in certain areas, it appears to have made little impact on the manufacturing, agricultural, and technical sectors. However, even in the United States and in other countries which have taken the legislative route, there is difficulty in having an effect there. It would therefore appear that some major responses are necessary from both levels of government in Canada to change the vocational training picture for women.

Studies written in the United States and Sweden detail many pages of legislative, educational, counselling, and informational changes which are needed to improve the picture. I've listed some of these below. It is certain, however, that a great deal more research and effort has to be put into finding solutions in Canada.

Whereas I agree that the steps listed below must take place, my bias is that targets are necessary to increase radically vocational training diversity and opportunity for women. The federal government in the Ontario region in the fiscal year 1977-8 set targets for the placement of women trainees in non-traditional training programs. Non-traditional was defined in the broadest sense as jobs historically occupied mainly by men. In the CMTP programs offered by the community colleges a target

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14 Issues in Intergovernmental Relations, Ontario Economic Council Report, 9 Aug. 1978

of 15 per cent participation was set for females in non-traditional training programs. Initial results show that a 13 per cent overall placement was achieved. In the Canada Manpower Industrial Training Program, where the training is on-the-job, targets were also set in various job categories. These were not as successful, for a number of reasons, but some increases were noted. Years of voluntary responses have simply not paid off. Targets work.

#### RECOMMENDATIONS TO IMPROVE THE PROSPECTS OF WOMEN IN VOCATIONAL TRAINING

- Develop a federal policy statement specifically endorsing vocational training opportunities free from sex bias.
- Set targets for percentage female participation in all new jobs created.
- Examine and propose changes in the counselling structures in the secondary school system.
- Conduct public awareness programs on job-specific training.
- Review for authenticity the entrance requirements to skilled training programs and job areas.
- Design and offer pre-apprenticeship skilled-trades training programs aimed at women.
- Examine the special needs of the mature woman in vocational training.
- Review collective bargaining agreements for bias in this area.
- Include in all vocational training programs information on the changing role of women in society, their legislated rights, their participation in the work force, their skills, and so on.
- Set up pilot schemes in the major industries of the province in conjunction with the management to train women in non-traditional jobs.
- Provide counselling and support systems to deal with the problems of the first wave of women into non-traditional jobs.

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## DISCUSSION

L. NICHOLSON I don't believe you are going to legislate women into the work force which it would appear by doing percentage work you're going to try to do. It's not going to happen. The majority of women don't want to be miners or carpenters or coal hewers or whatever. They are quite satisfied to become part of the work force, then to get married, leave that work force, and return to it at a certain given time. But before looking at all those things too, we better look at why most women go to work. If they're in the work force between the ages of twenty and thirty, they're out there because they need a down payment on a car or a down payment on a house. If they're still in the work force between thirty and forty, it's because they can't survive on one salary any longer; the kids have to be shod and they have to eat. When they get to be forty to fifty, they're looking towards pensions and supplementing the man's income, saving for old age. That's why most women are in the work force. But the ones we're concerned with are those that choose to be in the work force, because they wish to have a career, and they are the problem children, because the counselling they receive is inadequate. They're geared not to enter the career work force unless it's a white collar job. They're geared to go into the work force as secondary income earners. We can't ignore the fact that some women want to be in that work force because they're going to support themselves through life.

In Ontario in 1975, 36.8 per cent of the female work force was either single, divorced, or widowed, and they're the ones needing training, not those aged sixteen to twenty. Ongoing training is needed for these people to continually upgrade them. Most women are disadvantaged in the labour force throughout Canada, not only in Ontario. They're clustered in clerical, sales, and service groups, compared with only 20.4 per cent of the men. Women have tended to work in fields dominated by other women. Women are their own worst enemies many times. It's not easy as a woman to work for another woman who has made it if you are trying to make it yourself. It's a very select society to break into. In the professions the women are again concentrated in low-paying female areas. Of health professionals, 72 per cent are women. Within that classification, however, they're segregated. Three per cent are dentists; 9 per cent are physicians and surgeons; but 99 per cent of all occupational therapists, nurses, and dental hygienists are women. And they're not only in the job ghettos; they're financially disadvantaged too. In 1973, full-time women workers in Canada earned an average of \$5,500, while the male average was \$10,072. They only earned 54.9 per cent of men's earnings, a fact reflected in all occupational groups. That is what women see.

There are a lot of deterrents to women going into non-traditional fields. One of them is that the normal woman is not going to be able to lift and carry as much as a man. But there are ways around that: machines do most of that lifting and carrying now. It doesn't take one person to lift a carpet; it takes three people to lift a carpet.

Unions have gone to bat for women much more often than many people think. I had one grievance where an ambulance manager denied a woman a job as ambulance attendant because, he said, he only had one bathroom. I said to him, "well she's a married woman; she uses the same bathroom as her husband at home. What would stop her using the same bathroom here? Do you have a lock on the door?" We finally got her into the ambulance service. Another deterrent is the labour laws. They're denied the right to be miners; very few women would want to be miners, but for that one woman who does there should be no deterrent.

One important area in advancing women is job evaluation. A good job evaluation program, which the unions are moving into more and more, evaluates the job and not the person doing it. We are doing that very strongly in my union.

We have to do away with all the biases, all the tearing apart that a woman gets when she wishes to do something that is non-traditional from the family, from her workmates, and from her peers. You are not going to do this by legislating percentages anywhere. Education begins right down at kindergarten. Counselling must begin before secondary schools, in the elementary schools. The first step is to start very early, letting women know when they're very young girls that the opportunity exists. The opportunity must exist for the few that wish to take it. I don't foresee that percentages will become much higher in many fields, but those who want it must have the right. A woman must have the same right as a man to move into any field.

J. WOOD Certainly in the computer field it would seem women have equal access. Women are working on the same level as men in programming. But as for moving up into the control of the business, into management, that is not happening to the extent that I think it ought to. In industries like electronics, women are still helpers or assistants. The training to move into control of this function is not there.

L.H. HARLEY We still see a shortage of female applicants in the technology disciplines. That situation is changing, though, at the community college level at least. Women in data processing, programming, and analyst positions are well represented of my company and the companies we talk to. These women, though, tend to be university graduates and are more oriented to careers anyway. There's really an awful lot of difference between that and getting into vocational training.

J. WOOD Data processing may become an all-female job. There are many examples of this trend. When typewriters first appeared, men were at them. As soon as they could get women to do them, they replaced men. At a higher level of skill,

processing and programming are fairly routine though requiring analytical ability. Where women find access, it is in danger of becoming a traditional occupation for women.

I've recently been hiring for pension trainees, and with the large number of graduates on the market at the moment we've had so many women applying for this job that I literally could not get a male. So I've ended up with an all-female job, which I know, despite job evaluation, is going to affect that job. People are going to undervalue it because it's filled by women. Even in a job evaluation system where points are assigned, as soon as you know it's done by women it somehow gets undervalued. To me the great concern in jobs being filled by women, and I see data processing going that way, is that women seem to take it over.

J. POGLITSH The Ontario Civil Service Affirmative Action Program did an analysis of the civil service wage structure and classification system and found a direct inverse correlation between the percentage of an occupation or classification that was female and the salary.

H. NICHOL Peter Dykstra and I, from DeVry Institute of Technology and Radio College of Canada have hundreds of students every year. This year I have only four women. Last year it was two, and the year before it was one. We've made major efforts because we know from talking to IBM and Honeywell and Univac, who come to hire custom engineering people, that they would snap any female graduates up. They are interested in those women. I guess it's that favourite whipping boy, the high school guidance counsellor, who is to blame. Women are just not coming. And the opportunities are tremendous. They would have five job offers. I'm talking about the average, just slightly above average, woman with some ability in mathematics and science. Five years ago we did a study that showed that the Ontario Association of Certified Engineering Technicians and Technologists listed one hundred women out of five thousand accredited technologists. Of those women 95 per cent were trained outside Canada.

J. WOOD It's obviously true Mr Nichol, that you like women, but how much do you really want to do for them? If my major job market really wanted women, I would have a competitive edge on my business if I could get them in to be trained. Therefore, what are you doing in your particular college to make sure that you get women?

H. NICHOL I spent a great deal of money and put a poster headed "Talent has no sex" in every school in the province - and most schools did put it up - to advertise these opportunities and encourage women to come. The response was pathetic, from the counsellors at the high schools as well as from the women. When our people go to a school to talk to classes, most guidance departments are very co-operative. We have talked to students in every school in the province of Ontario. But the counsellors will always direct us to the technical division rather than the academic division, and in the technical



division there are few women in those survey courses or the technical courses. Consequently my registrar has not even been able to talk to a woman.

J. POGLITSH I don't blame the counsellors for everything. It's true that women don't all want to become carpenters and miners, but the reason is often that they've never been exposed to those skills, those jobs, and their satisfactions. I have been told of several different school districts in southern Ontario where parents have fought desperately to get their girls into shop courses and the school board has not permitted it. The segregation of girls and boys in our school system in the vocational aspects of their education is fundamental.

A.M. THOMAS I suppose everyone in the room acknowledges that this is one part of a very fundamental change that's taking place in this society, and that it has ramifications in all of our lives. For that reason, even in this limited sector it seems to me that it approaches a copout to weigh in too heavily on the inadequacies of high school counselling. I think some fundamental attitudes about sex roles are beginning to change. But to concentrate our expectations on the school system to lead in so fundamental a matter seems to me a great mistake. School systems are not able to produce those kinds of revolutions, though they're able to support them.

The elaboration of a decent system of continuing education which allows entrance and exit, not only to jobs, but to training as well at a very much greater range of ages in this society than was the case even a decade ago is one very promising development for women, because it encourages them to enter the work force, leave it for the purpose of having children, come back into the work force, and still have a chance to have access to the kind of training that over a period of time can make them competitive. Paid educational leave can be of major importance in making the educational system flexible. In a highly technological society which makes more demands on more intelligence of more people than previous societies have done, we simply have to have the range of intelligence that exists equally in the females. What we have to prevent is simply exploiting that intelligence without giving women the status of the positions appropriate to the kind of intelligence that they're contributing.

R. ADAMS This issue of the inadequacy of counselling has run through these sessions. I don't believe it's simply counselling. The problem is much more basic. It runs through the whole philosophy and structure of education. It really begins with the sociologists and psychologists in universities. Sociologists documenting the occupational structure and the attitudes of people towards various occupations discover that people value white collar and professional jobs very highly and place low value on blue collar jobs. The psychologists, following Abe Maslow, argue that people have a basic need to become everything that they can become. These ideas are out into textbooks which are used in universities and in teacher training colleges. The teachers decide it's their job to



stimulate the children to be everything they can be and that means to be professionals and white collar people and to stay away from blue collar jobs. And so, throughout high school, the kids get a dose of this and when they come out a very large proportion, much larger than exists in the economy, want to be professionals and white collar workers and generally despise blue collar jobs. Women have families, and when they come back to the labour force in their thirties they find themselves shut out from the professions. They're welcome into white collar jobs. It's difficult for them to get into blue collar jobs, but since they've been taught in their youth to have contempt for blue collar jobs they make no real effort.

This problem is not going to be solved simply by better counselling. The problem is only going to be solved when society recognizes that there is nothing dishonourable about skilled work.

J. WOOD I'm just not going to wait around, though, until these basic social problems are solved. I don't think most women are. You might be able to sit back and wait because you've had it all along. White males have always had it in our society - so women need to sit back and wait until men solve this basic social problem? No thanks! Recurrent education is a much more significant concept for women than for men at this moment in our society. Women are coming back into the labour force in their mid to late twenties with a lot of experiences, a lot of background, but technically illiterate, and they lack a great deal of confidence about the opportunities available to them. Not only that, they do not represent a market we can easily get at. They're not all sitting in classes in school. We can't go out and feed them the information. So when Mr Nichols can't get girls in school and thinks he might be missing a market in a lot of older women who have gone through their experiences of marriage and child-bearing and are ready for work, he may be right. They're just very difficult to connect with.

J.C. MCKIBBON I'm inclined to agree with Mr Adams that there is a basic problem here. It's interesting for a non-educator to listen to educators. I give far more weight to the family than I do to the schools. I don't think it's the school that created the middle-class feminist but the home. After all, feminists went to the same schools as did the people who are not feminist. So I don't know that the educator can do anything about the stereotypes.

Secondly, it is very difficult to get the vast majority of people who have left school to go back to the classroom. They are frightened, and they don't like the experience. Returning adults are willing to work much harder than young students, and to put them into a course designed for young students, even in universities, will turn them away in droves. They're not willing to play around with the game.

We might learn from the situation immediately after the second world war when many veterans went to cram schools. They worked hard and got their qualifications. I don't know whether they got an education or not, but they qualified to get into

university and I guess did reasonably well. Possibly something of that nature is needed.

W.A. JONES School guidance programs through the fifties in particular were heavily vocationally oriented. But we had drastic changes through the sixties. The point to remember is that within the school systems of the province, as opposed to the community colleges and universities, a political body intervenes, and that body is the school board. The school board determines the policies for the system and controls it. If you teach in one of those systems you'll soon discover this if you try to break out in any way from the policies the school board has established. So we moved in the sixties into a rapidly changing society, and school boards responded differently.

The city of Toronto school board had a rapidly changing composition, and it argued very vociferously for local autonomy in decision-making, for the local community deciding on principles. But while they were arguing they were impatient; they saw the changing society, and some of them thought they knew what the answers were. That system took quite a turn in one night, the night the school board took the decision about school dress out of the hands of the local schools and into their own hands. They decided that night that students could wear what they wanted to school, that dress was not the school's business but the student's. At that moment a lot of things changed. In commercial schools in particular, such as Eastern Commerce, where they had a long tradition that one came to school neat and clean, as though going to business, the accepted norm of dress was changed. In other school boards the positions taken got school guidance counsellors all tied into drug problems and so on. School boards did not want to hear about principals expelling students because it created political problems for them. They didn't want to hear parents talking about someone being prevented from going to school. So the whole direction changed, and school guidance counsellors, who had set out to provide vocational counselling, found themselves caught up in handling a lot of problems for the school administration. In Ontario, as you have seen in the papers, we still have school boards concerned about the kinds of books that English teachers use in their classrooms. We talk here about sex-role stereotyping, but those persons are still back at that stage. Throughout the province there is a great unevenness of attitudes about what the schools should or should not be doing.

Somehow this discussion reminds me of what was said by a very senior person, a woman, in one of the major papers in the country. We got to talking about the composition of the newspapers. As you know, most of them now present the story on a screen, and they do all the editing there; when they're through they press a button, it goes into the computer system, and the type is set. So I asked her about the central room, the computer room, and she said that every once in a while they had a little problem there. But, she said, fortunately, it's completely staffed by men. And when that happens, she said, - she has a country background - "they're like those great big



percherons that you used to have on the farm. They sort of calm you down just by their very size and demeanour. You just feel relaxed; you feel they're just going to start ploughing the furrow and the best thing to do is get out of their way." And she said, "I've made the point to the women's lib people, you know: just leave them alone. You can do anything you want within the newspaper, but please don't interfere with the percherons because they're the ones who are going to keep us out of trouble."

W.D. McVIE Guidance reflects society; it does not create it. Guidance people can only do what is acceptable. If they advised a lot of girls in a given school that they should become machinists, it would be like telling blacks before Jackie Robinson to play baseball in the majors. In other words, you'd be misleading the student. Guidance people always have the problem of how far to go in encouraging the people who are out of the regular stream, who are going to break down the barriers. Should a guidance counsellor lead somebody towards that type of challenge or should he suggest the route that most of them are going to want, which is one they can succeed in?

Secondly, we need to ask ourselves how far a school can go in changing social reactions. A school board in the province recently refused to hire a female industrial arts teacher because in their community she wouldn't be accepted. They were probably right. The children probably would have given that woman a very rough time. In our board she'd have had no problem. But there are boards in the province where the teacher might well fail just because of sex, which is unfortunate. We have to maintain a reality, but how do we do that and still be fair? And I think this is a very serious problem, and one we need help with. Sex stereotyping in texts is a major concern in school boards, and there's a lot of work being done on it. Some would suggest that a science text with only two women in it and eighty men as examples of scientists was biased. And yet of the scientists with national acclaim the great majority are men. How do you honestly present science which is historical and keep out of sex bias? There was not a female Napoleon. You've got to balance it somehow, and there is a real effort to do that. But in this area there are two things. One is the social setting which we work in. We do not create that. As a matter of fact, we're very conservative in schools in that sense. The second is just how far we should go in leading the way to new occupations. I'm not excusing the kind of thing that doesn't give girls a fair chance. I think we're overcoming that. But it leaves a much bigger problem of just how far to encourage women to take blue collar initial training at school, without getting them into difficulties.

A. BELESSIOTIS I'd like to turn to another question. In the last three years there have been two studies of discrimination in the labour market. One type of discrimination is employment itself, and that is obvious from the distribution of unemployment. The other is wage discrimination. And two studies indicated about a 20 per cent differential between women and men in the same jobs. That contradicts what was said in the

previous session about employers caring about human development and providing training and good things. How do you therefore explain wage discrimination?

L.H. HARLEY If I was the one that mentioned humanitarian views, I speak about the company experience I have had. I think in that way I'm fortunate, because it's a large organization, very responsive to image, very responsive to government. We don't have wage discrimination in our company. You cannot take a generalized statement and apply it to all groups, all schools, all companies. There are obviously pockets where a lot of work has to be done. But my organization is trying to convince women that they have a career and motivate them to do something on their own to get the necessary skills to get into management.

J. WOOD I think your question relates to the legitimacy of women in the workplace. I don't think that's been accepted, so all sorts of discrimination takes place. The very gross kinds occur in the small companies that won't even employ them or pay them very much less than males. In big companies like ours, the discrimination is much more subtle. I'd be surprised if it didn't exist in IBM also. There are very strong, subtle barriers to success in a company like mine. It's part of learning the games organizations play that women are not very familiar with at the moment. I think one of the reasons IBM is better, though, may be that its parent company is legislated. And it follows the parent company. Most American companies here are in a better state than Canadian ones because they follow the equal opportunities legislation of the United States.

It would be nice if everybody had "good" attitudes towards women, thought they were just as intelligent as men and entitled to promotions like men. But I'm much more interested in displayed behaviour. I'd much rather they displayed the behaviour of employing me equally. It's behavioural signs I want, and this is what legislation provides. It provides legislated good behaviour, so that you've got to employ women in certain distributions in the population. Simply trying to change attitudes will go nowhere. Nevertheless, there are structural problems with that Act in the United States. The way it is administered does not encourage equal pay at all. The sort of fines levied against employers are minuscule, and the sort of punishment women have got to take in order to bring a case does not help at all.

N.M. MELTZ Apparently 45 per cent of all income-earning women in Sweden work part-time. Now in Canada - and I'm not sure what measure they use, because the cutoff point between part-time and full-time certainly changes, but if we use thirty-five hours, the increase from 1953 to 1975 was from 10 per cent of all employed women working part-time up to 27 per cent. Now, female participation has increased and is likely to continue to increase. Does that mean more women will want to work part-time? So the question is, Jean, do you consider part-time work a legitimate area for women? Is it likely to increase? And if so, are there barriers there that should be removed?



J. WOOD I think coping with both alternative work problems and the integration of women is far too much innovation for the system to take. If women want to, they've got to be able to come in on terms consistent with the norm, not with innovative techniques. I have been involved in alternative working patterns in the United States. But they have gone nowhere in Canada, in my opinion. I am not going to be tacking onto a movement that's going nowhere in Canada because women are far enough behind. I'm personally very sympathetic to alternative working patterns. But if women choose to begin part-time occupations in Canada, they're immediately boxing themselves in to being used by the system rather than taking advantage of it. I think it's simply for employer's purposes at this stage; they're not looking at it as an innovative way of integrating more people and talent into the work force.

L. NICHOLSON Part-time is fostered by employers on a cost-saving basis. They don't have to pay the benefits to the women.

P. DAWSON Mr. Chairman, I'd like to respond to the speaker at the end who was interested in knowing a little bit more about wage rates for women in the work force. My company has had an integrated wage scale for many years, and we have both men and women on the same job. We have women engineers, women managers of departments, and both males and females in production. I don't think we see it as a problem, and I don't think the employees do because, taking packing line operators for example, males and females work side by side and get the same rate. I can't speak for the company, but I think we would like to see more women managers; the fact of the matter is we don't get that many applicants. When we go university recruiting, we're looking for women engineers. We don't get that many. They aren't coming through the system yet, but no doubt they will.

J. POGLITSH I was interested in hearing more about Jean's recommendations. I was curious who they're aimed at. The first is to develop a federal policy statement. Why federal? The second is to set targets for female participation in all new jobs created; but that could be in vocational training programs or in other areas as well. I'd like some amplification about the possibilities here in Ontario.

J. WOOD I think both those recommendations can apply to Ontario. The reason I put federal on them is that, from my experience in the Industrial Training Council, I know the money's federal. So I'm back at the jurisdictional dilemma. I would like the money to be distributed more evenly to create these situations. Also, federal policy in many ways leads this field at the moment. They have equal pay for equal value in the federal human rights code, and in a lot of their stances they seem to be ahead of the provinces. But these could apply in either situation. But some strong statements to this effect are necessary. And setting targets, as the example I quoted from the federal program showed, can work.

R.B. McAusland The other day I was talking to counsellors about the women who were in a seminar for alternative possibilities. They said there was a substantial difference from ten years ago when the sorts of questions women asked were obviously based on the assumption that they would come to college for a few years, find a husband, and then settle down. None of those questions are asked now. Questions are asked about promotional opportunities, advance preparation, and chances to move into other areas. Obviously such questioning was based on the idea that it was to be a life-long career, whether the reason is economics or self-fulfilment. Something has happened there in four or five years; perhaps the counsellors did a good job.

J. Wood I have a great concern for that wave of women we've seen coming into our company at the moment, young women who have been sold the myth that equality is here; they now expect it, and they find themselves up against the lack of opportunity, unemployment, and so on. And they've really been convinced they can each open up a company at the moment. They're willing to take the lowest jobs in the belief that equality is here and they're going to move through the system to those other jobs. They're not. Those lower jobs don't go anywhere, and they're buying themselves a lot of trouble.

H. Noble The idea of nice middle class people changing their values and governments having nice little programs to help women is garbage. Legislation is the only thing that's going to change anything in Ontario. There's an overwhelming weight of evidence that men are bloody pig-headed and pretty stubborn, and it's going to take more than niceness to change it.

## INTRODUCTION

The purpose of this presentation is to examine the role of the colleges of applied arts and technology during their first decade and to identify the problems and trends that will have significant impact on the College movement in the years ahead.

The first section describes the post-secondary educational environment of the early sixties, which was dominated by the university, and provides a rationale for the creation of an alternative educational delivery. It also introduces some of philosophical underpinnings of this new institution, which has also been termed "community college" for the purpose of this paper. The second section indicates the scope and size of the colleges after ten years and describes the dimensions of an average college. The third section analyses several major studies of the colleges during the first decade and provides some indication of their success. The final section is focused on problems and policy directions that should be considered for the future. A summary of these directions is provided at the beginning of the study.

We are well aware that this study covers a time span of nearly thirty years. This in itself imposes many research limitations. But we are confident that we have identified the essential problems, issues, and future considerations in the minds of community college educators and worthy of serious

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consideration. We hope that fruitful and thought-provoking discussion of these issues may give rise to other opinions that either supplement or complement those presented, with a view to providing a more productive and cost-effective educational institution in the years ahead.

## COMMUNITY COLLEGE DEVELOPMENT IN ONTARIO: HISTORICAL DEVELOPMENT

### Rationale

Too many of our students and their parents know only of the university-type programs at the post-secondary level, and the result is that the majority of our young people attempt university-preparatory programs in secondary schools. But with no avenue except university open beyond high school, what else can they do? (Ontario Education Association, 1967)

"What else can they do?" Thus, the Ontario Grade 13 Study Committee focused public attention on the fundamental problem in Canadian post-secondary education. Canadians have, by social pressure, forced into our universities many students whose interests and abilities should have indicated to their parents, to their teachers, and to themselves that university was not for them. Our high rate of "drop-outs" verifies this.

There is a second group of students who, for a variety of reasons, did not go to university but have potential abilities the development of which is vital to Canada's cultural and economic growth and to the fullest enjoyment of life for each of them. "What else can they do?" seems a vain question in light of the many alternatives to a university career: technical institutes, teachers' colleges, correspondence courses, trade schools, and apprenticeships. However, the fact was that very few college-age students were enrolling in these institutions.

But the problem was more than one of quantity, it was also a question of quality. Many reports had been presented on the expansion and financing of higher education in Canada, but few



had even questioned the quality, the character, and function of our educational systems. There seemed to be an assumption that the present form of higher education was satisfactory, and all that was required was more of the same. What educational planning there had been usually came from legislative pressures to plot the expansion of existing institutions and establish copies of them at minimum cost and with little alteration of their character and functions. What was needed was a more imaginative attempt to determine not only the number of students to be served but also the kinds of education that would meet their needs most effectively, and to devise a pattern of institutions designed to provide a wide range of educational opportunities that were of high quality as well as economical (Stager, 1966). An institution that would fit into such a pattern was the community college.

To function effectively, tomorrow's society would be highly dependent on an enlarged portion of flexible, creative individuals whose social and intellectual potential had been as fully developed as possible. To meet this situation effective action was taken on the principle that every person should have an equal opportunity to education for the fullest development of his or her abilities without financial or geographic barriers. This principle was frequently misinterpreted to imply that everyone had a right to the same education. Such a situation resulted in pressures on the universities to grant nearly every high school graduate a BA degree. As Ford and Urban (1965) have pointed out: "Across the land we have hundreds of young men and women who are coaxed and wheedled into going away to college - youngsters who are not academically oriented, who do not learn well under the circumstances provided by the typical university with its highly formalized system of abstract instruction and course requirements."

Because of the many academic and personal problems these students encountered at university, 21 per cent of those who enrolled in their freshman year did not go on to second year; and 33 per cent failed to obtain a degree (Canada Department of Labour, 1963). The drop-out rate was much higher in faculties

where the social and economic pressure was strong and relatively unchecked than in faculties where, although these pressures were great, stronger measures had been taken to curtail the enrolment. The drop-out rate in engineering, for example, in the period 1954 to 1959 averaged about 40 per cent, compared with about 8 per cent in medicine. It was evident, therefore, that many who were admitted to the universities were somehow unsuited for university-level studies. These persons needed a sufficient number of institutions more closely suited to their abilities and interests. Besides persons admitted to universities who should not have been there were others who had not applied for admission but had had the persistence and interest to complete a high school program. These persons could develop aptitudes useful to themselves and to society if they could enrol in a more suitable institution. However, Canada, and especially Ontario, offered these people little choice.

Preoccupation with the development of universities rather than with a complete pattern of post-secondary education had led to serious difficulties. The economy had encountered the dilemma of dealing with a high rate of unemployment among those with little education while seeking to overcome a shortage of skilled, technical, and professional manpower. In the post-war period, part of this manpower shortage was offset by importing skills through immigration and by large numbers of women re-entering the labour force.

In summary it had become apparent that university education for all students was inappropriate. It was further noted that successful high school graduates who did not have university aspirations lacked viable training programs for career opportunities that were becoming available as a result of skill shortages in the labour force.

## The legislation

In introducing the legislation for the establishment of the colleges of applied arts and technology in May 1965, the minister suggested that this provided for:

the introduction of a new level and type of education, one which is still in keeping with our traditions and accomplishments. Above all else, it goes far towards making a reality of the promise - indeed of the stated policy - of this government to provide through education and training, not only an equality of opportunity to all sectors of our population, but the fullest possible development of each individual to the limit of his ability. In this new age of technological change and invention, also, it is essential to the continued growth and expansion of the economy of our province, and of our nation, that adequate facilities be made generally available for the education and training of craftsmen, technicians, and technologists. (Ontario Department of Education, 1967).

In announcing the establishment of the colleges the minister quoted John Deutsch, chairman of the Economic Council of Canada, in March 1965:

The world in which we live and must make our way is one which demands ever-changing pattern of occupations and rising levels of skills. The occupations which are growing most rapidly are those which involve advancing levels of basic education and training. The occupations requiring the lowest levels of formal education are declining ... Much has already been done to meet the educational needs of our times, but there are significant deficiencies and gaps which remain to be overcome, especially in respect of research, the retraining of workers, and the development of highly skilled manpower ... A considerable number of [Canadian] companies are experiencing a scarcity of managerial, technical, and scientific personnel ... There has long been a deficiency in our educational system in regard to the training of technical personnel beyond the high school but short of the university level ... An adequate general education is the best basis on which to build and to rebuild the particular work skills which the future will require ... In addition to adequate general education, the increasing speed of technological change requires greatly expanded efforts in the fields of training, retraining, aids to labour mobility and job placement services ... to achieve our goals ... We must invest not only in buildings and machines; we must also invest rising amounts in research, and in the education and training of our youth. The value of our natural wealth is great, but in the present-day world, there are even greater riches in the knowledge and skills of men. (Ibid.)



How was this concept to be integrated into the present system? The minister implied that the establishment of the colleges would complete the educational plans for the province:

Now, having put in train our plans for other areas of our school system, we can focus our attention on the design of this remaining section, directly related to the applied arts and technology for full-time and for part-time students, in day and in evening courses, and planned to meet the relevant needs of all adults within a community, at all socio-economic levels, of all kinds of interests and aptitudes, and at all stages of educational achievement. Our efforts here could, I suppose, be considered also as a co-ordination and culmination of all previous work in this area: a welding into a coherent whole, so to speak, of the parts which have sometimes seemed fragmented and unrelated, so that we have a complete system extending from the kindergarten to the post-graduate level. (Ibid.)

#### The concept

The colleges were intended to be occupation-oriented for the most part. These career institutions were to be commuter colleges whose program offerings were designed to meet the needs of the local community.

#### Principles

It was suggested (ibid.) that if the community colleges were to establish a social identity they should be based on the four following principles:

(1) they must embrace total education, vocational and avocational, regardless of formal entrance qualifications, with provision for complete vertical and horizontal mobility; (2) they must develop curricula that meet the combined cultural aspirations and occupational needs of the student; (3) they must operate in the closest possible co-operation with business and industry, and with social and other public agencies, including education, to ensure that curricula are at all times abreast, if not in advance of, the changing requirements of a technological society; (4) they must be dedicated to progress, through constant research, not only in curricula but in pedagogical technique and in administration.



Implicit in the principles is a variety of features related to curriculum, counselling, and community service which were provided as broad parameters.

#### Program and responsibilities

The programs offered were to be determined by the community. But every college was charged with three major responsibilities (ibid.):

(1) to provide courses to types and levels beyond, or not suited to, the secondary school setting; (2) to meet the needs of graduates from any secondary school program, apart from those wishing to attend university; and (3) to meet the educational needs of adults and out-of-school youth, whether or not they are secondary school graduates.

Where appropriate to community need, the range of option offerings was as follows:

(a) engineering technician and technologist programs below university level; (b) semiprofessional non-engineering type programs (e.g. in the paramedical field); (c) high-level programs in office and distributive occupations, specifically at junior and middle management level, and including courses for small business; (d) agricultural and agricultural-related programs, at least in rural areas, in co-operation with the Department of Agriculture; (e) general adult education programs, including cultural and leisure time activities; (f) programs of recreation, including physical education; (g) general or liberal education courses, including remedial courses in basic subjects, and often incorporated as part of the other programs (e.g. English, Mathematics, Science); (h) retraining, upgrading and updating courses; (i) trades skills, pre-apprenticeship, and apprenticeship training; (j) service industry courses (e.g. for tourist industry); (k) commercial courses (e.g. cost accounting, junior accounting, data processing, computer programming); (l) other courses to meet local needs.

#### Facilities and staffing

The minister suggested that the provincial Council of Regents would study the integration of existing buildings and

staff as well as programs as the nucleus for the development of the new colleges.

## THE COLLEGE SYSTEM: ONE DECADE LATER

### Scope and size

In 1977-8, the twenty-two colleges served 81,911 full-time students, including 61,094 post-secondary students, 13,503 adult training students (sponsored), 3,764 tuition short-program students and 3,150 apprentices. These figures represent registrations during the fall of 1977. In addition, there were 478,058 part-time registrations during the 1977-8 academic year. The full-time students took courses in 431 different programs of lengths varying from sixteen weeks to three years.

### An average college: a case study

Growth. The college system in Ontario can best be typified by examining the growth and development of an average college. St Clair College, with the ninth largest enrolment in the province, fits this description and will be used as the example.

Although St Clair College originated in the Western Ontario Institute of Technology, it was incorporated as a college of applied arts and technology in 1966 along with eighteen other colleges in the province of Ontario. In 1966 it had an enrolment of 603 students in the two major program areas of business administration and technology. Each of these program areas had three options. The college has grown to the point where the comparable post-secondary enrolment for 1977 is 3,170 students in forty-six individual programs. In addition, the college has absorbed retraining programs which comprise approximately 1,000 students and a continuing education offering which handles some 20,000 registrations a year. The growth in physical facilities is demonstrated by the fact that the college in 1966 was made up of several diverse locations

and rented facilities. In 1978 campuses are located throughout the counties of Essex and Kent. The main campus is located in Windsor, with satellite campuses in the downtown area of the city and in many diverse localities in Essex County. In Kent County the new \$3.5 million Thames Campus facility serves the students of Chatham and Kent County along with many additional out-reach centres for continuing education throughout the county. The operating budget required to support all of these programs and the services to the students in the programs is expected to amount to approximately \$20 million.

Student profile. Studies of freshman students at St Clair College during its first decade reveal some major findings:

- Age. 70 per cent of students are between seventeen and twenty-two years of age, with the majority reporting an age of nineteen years.
- Sex. The college is showing a steady increase in the number of female students. In 1970, only 36 per cent of the post-secondary students were female, in 1977 this figure has risen to almost 60 per cent.
- Student expectations. Almost 77 per cent of the students say they expect their attendance at the College to lead to a well-paying job after graduation or to skills which will lead to employment.
- Vocational concerns. 32 per cent of the students studied are undecided about their educational goals. Adult students seem to be much more likely to have clearly thought out goals.
- Study skills. Up to 30 per cent of reporting students indicate a need for further work in reading, writing, and study skills.

#### Challenges in the years ahead

- To continue to maintain and assess the effectiveness of on going programs.
- To establish management information systems to increase institutional efficiency and productivity.

- To establish strategies and programs for the adult part-time student and emerging target groups.
- To establish new initiatives in Employer-Sponsored Training.
- To establish a more effective learning environment through staff renewal, increased advising and career counselling, and further experimentation with a variety of modes of instruction.

## RESULTS: THE FIRST DECADE

### Annual followup: 1977 graduates

Each year the Ministry of Colleges and Universities attempts to determine the placement success of their graduates through a followup report (Ministry of Colleges and Universities, b) prepared jointly by the Ministry and the placement staff of Ontario's twenty-two colleges. It shows the total number of graduates and the numbers of graduates who obtained full-time, program-related employment, their median salaries, and related information such as number of graduates proceeding to further their education.

Of the graduates available for employment, 86 per cent of the graduates of one-year programs were successful in finding jobs, the rate being 80 per cent for graduates of two-year programs and 87 per cent for graduates of three-year programs.

### A five-year followup: 1971 graduates

In summer 1971 the Ministry of Colleges and Universities began conducting an annual survey of a sample of the 1971 graduates from the colleges (Ministry of Colleges and Universities, a). The purpose was to provide a five-year perspective of employment and salary patterns of the 1971 graduates. One limitation of the study is the drop in accessibility of the graduates through the five-year period. But the sample is large enough that the substantial career success of the graduates is quite visible.



Employment status. In January 1976, 90.5 per cent of the respondents were employed. Business graduates had the highest employment (95.3 per cent), followed by technology graduates (94.3 per cent), secretarial graduates (84.2 per cent), and applied arts and science graduates (81.8 per cent). Most employed graduates (95.5 per cent) were working full-time.

Salaries of graduates. A distribution of salaries for the respondents employed at the time of the survey, January 1976, showed the median salary to be \$12,000. Median salaries for each category are as follows: business \$12,721, secretarial \$8,470, technology \$12,937, and applied arts and science \$10,195.

Continuity of employment. 30.9 per cent of the respondents employed in January 1976 have experienced an interruption in their employment of a month or more since their graduation. 44.9 per cent of the respondents reported a change in job since the summer of 1974. Better salary, promotion, better chance for advancement, a job more related to interest, and better working conditions were the most frequently reported reasons.

Relationship of college training to job. Employed respondents were asked for their perception of the relationship of their present jobs to their college program. 85.3 per cent thought their present jobs were at least partially related to their college training.

Geographical mobility. The data indicate that, as of January 1976, 91.7 per cent of the respondents were working in Ontario, and most of them were working in the same geographical region<sup>1</sup> or in a region bordering that in which they graduated.

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1 The geographic regions employed were those used to define college jurisdictions. For the purpose of the study, college areas 7 (Seneca), 6 (Humber) 5 (Centennial), and 19 (George Brown) were treated as serving a single region comprising Metropolitan Toronto and the Regional Municipality of York.

Further education. Respondents were asked whether they had received further formal education and, if so, from what sources. As of January 1976, 49.3 per cent of the respondents had not received any further formal education since graduating in 1971. Of the 50.7 per cent of the respondents who had, about half received the education through a community college or a university. Over half the respondents took programs related to their original college program.

Conclusion. Although there were limitations in this study, it does suggest that college graduates from career programs are gaining and maintaining employment and increasing their earnings through promotion. Further, they are working in the area of their training, and many are now pursuing advanced studies.

Perception of community college success: The secondary/post-secondary interface study

Introduction. There was, and continues to be, growing public concern over lack of coordination between secondary education and post-secondary education. In response to this concern, the Ontario Ministries of Education and Colleges and Universities began in 1975 a number of research studies. For the purpose of this paper, reports on the attitudes of educators, the general public, and students to the effectiveness of the community college system are pertinent.

Goals of the system. Members of the general public, students and educators agree with the importance of developing vocational and career skills at the community colleges.

Of the possible objectives that could be established, development of vocational and problem-solving skills among community college students are perceived by educators, both secondary school teachers and college faculty, to be of most importance. Educators also agree that encouraging students to adopt a positive attitude toward learning and developing their

understanding of the theoretical principles of a discipline or field should be established as second-level objectives. Educators consider personal development goals, that is, the nurturing of personal growth and development and the fostering of individual and social responsibilities and values, to be of least importance, along with the development of first-language skills. Community college educators, like university educators and secondary school teachers, when thinking about their respective institutions feel that goals related to personal development should not be given priority at their institutions.

Members of the general public and students agree with educators about the importance of developing vocational and career skills. All three groups believe community colleges are not simply "vocational schools". Other important objectives of a more academic nature should be achieved. They ought to provide students with knowledge in particular subjects, continue to develop students' problem-solving skills, and continue to encourage students to adopt a positive attitude toward learning.

Apart from the fact that community colleges are perceived to be doing a creditable job in the area of vocational and career training, educators insist that these institutions continue to be responsive to the social needs as well as to the needs of employers in the communities.

Over-all assessment of community colleges. Over the last five years the quality of education received at a college has improved, according to the majority of students and general public (59 per cent of the general public and 67 per cent of students). About 20 per cent say that the quality has "remained the same", and only about 5 per cent say it has deteriorated. Faculty members also feel that their institutions have continued to improve. About 61 per cent of them state that the achievement of the colleges has improved over time, while 18 per cent believe it has remained the same.

Only secondary school teachers appear to be reluctant to praise the community college system. A sizable number of

secondary school teachers (30 per cent) refuse to evaluate community colleges; about 33 per cent say achievement of community college students has improved, 24 per cent say it has remained the same, and 13 per cent feel it has deteriorated.

Those believing there has been an improvement in the level of achievement among community college students primarily acknowledge improvements in the system. Improvement, they say, results from maturation of the system in conjunction with a recognition and resolution of problems, and an updating of objectives.

The secondary school teachers and community college faculty who maintain that student achievement at the colleges has deteriorated indicate that the preparation of the student entering from the secondary level is inadequate and that lower standards coupled with high enrolment contribute to the deterioration. (Ministry of Colleges and Universities and Ministry of Education, Interface Study).

## Conclusion

From the studies available one could conclude that the performance of the community colleges has been more than adequate during the first decade. Some highlights of the findings are as follows:

- Annual reports indicate that the success rate of job placement has been consistently over 85 per cent for the college system.
- The graduates have been competitive and received salaries commensurate with their training.
- A five-year followup study reported that the students were achieving upward job mobility.
- The students in the followup study reported that their jobs were related to their training.
- The students in the followup study noted that they were pursuing related advanced studies.



- The interface study reported that vocational training and "responsiveness" to needs of business and industry and to community should be the stated goals.
- The interface study reported that the perception of educators and members of the public at large was that the colleges of applied arts and technology were successful in meeting their goals.

It probably would be desirable to have available further studies to document the apparent success of the colleges. However, it is our opinion that the available data supports the view that the community colleges have been a viable education entity. However, a number of issues and concerns must be addressed if the colleges are to enjoy continued success.

#### FUTURE POLICY DIRECTIONS

The following is a discussion of some concerns, issues, and problems that dictate directions to be considered in the next decade.

##### Review of community services

In the first decade the colleges appeared to be successful by offering a variety of short courses, workshops, and seminars to a wide range of target groups with differing educational needs. These groups included programs for women, for senior citizens, for the disadvantaged, as well as for business and industry. Presidents across the province point to the outreach delivery of the colleges as a major contributor to its success. Public opinion expressed in the Secondary/Post-Secondary Interface study clearly advocates the need for colleges to maintain a 'responsiveness' to community.

At present there are role conflicts in some regions with secondary schools that are facing shrinking enrolments and have embarked enthusiastically on community education programs. It is also evident that shrinking financial resources may severely limit such offerings in the future. The public have responded

favourably and will expect to have continued access to the resources of the local community college. However, there appears a need for further definition of mission. How should the youth, adults, and senior citizens of a community be served? Who has the mandate for community education and with what target groups? These questions must be answered if the community college is to maximize the financial resources allocated to a community. Future policy directions are required for educational institutions providing community services to avoid duplication and better serve the public.

#### Re-emphasis on industrial training

The rapid expansion of the mid-sixties gave instant birth to twenty-two colleges. In the first decade college energies were utilized in constructing and renovating buildings, selecting staff, and establishing post-secondary career programs for the graduates of the newly reorganized secondary school system. Some colleges launched massive adult education programs. In the area of industrial training the major offerings were the Canada Manpower Training Program and apprenticeship as well as a few program variations which made attempts at being industry-based. A more recent program, the Ontario Career Action Program (non-institutional) has been well received. The fact remains that during the first ten years, working hours of administrators and boards of governors were dominated by the post-secondary career programs. Future consideration should be given to the facts that post-secondary enrolments are levelling out, most of the program development is completed, skill shortages are requiring a need for advanced skill training, some of the most current equipment and expertise are available through industry for training purposes. Further, the Interface study indicated that the public sector felt that colleges should remain responsive to business and industry. This approach, although not free of problems, merits careful consideration.

One of the future thrusts should be to re-examine and revitalize the potential partnership of business and industry

as a major vehicle to training. Industrial training could well be one of the dominating forces of the eighties.

## Collaboration

Society can no longer afford the costs of duplication of facilities and programs as educational institutions attempt to serve their communities. Co-operative programs between colleges, universities, and secondary schools need to be investigated, especially where the mandates appear to overlap. Potential partnerships with business and industry could provide high payoffs for both groups. Industry could get highly trained workers, while colleges would find staff, facilities, and current equipment. The opportunities to work with other groups such as chambers of commerce, mayor's committees, and Canada Employment Centres are but a few examples of how co-operative endeavours could help the community. The potential to make gains here is phenomenal on a provincial or regional scale. The recent combination of ministries in the Ontario government could facilitate collaborative and synergistic efforts.

## Remedial programs

A continuing educational debate has concerned the degree to which high school graduates are equipped for post-secondary education. The open-admission philosophy of many colleges, followed by high attrition and failure, indicate a need for remedial efforts in reading, writing, mathematics, and study skills.

Students enter college with a wide variation of skills and competency. One of the major findings of the Interface study was the overwhelming support by the public and by educators at all levels for colleges to provide remedial skills. This is done most effectively when students are properly assessed, assigned a prescribed program, and permitted to progress at their own pace.

The mandate of the colleges should consider introducing remedial programs so that personal prescriptions for adult learners can be developed.

### Career counselling

Counselling and student services were intended to be an integral part of the educational process in community colleges. There has been a wide variation in the utilization of the counselling function. Evidence suggests that as many as 30 per cent of college freshmen are floundering in career choice. The high attrition rates and failure could be reduced with appropriate assessment and redirection.

The recently introduced Ontario Career Action Program (OCAP) has provided further evidence that students need help in job-search skills. A commitment to career counselling and assessment is vital to making good on the promise of the open door. Perhaps training should be provided, as well as technical and human resources, to assist colleges in establishing effective career counselling programs.

### General education

General education has been a basic instructional component in the community college concept. A general guideline establishes 70/30 mix of core programs and general education. However, a debate has arisen between those who value general education and those who prefer that the instructional time be used for intensified skill training. The extent of this debate varies by region and college. The public opinion survey in the Interface study strongly endorses an instructional component that enhances an individual's problem-solving skills. It is our opinion that an understanding of the dynamics of society accompanied by communication skills are an important part of the educational process. Alumni evaluations of program content



have supported this view. General education should be an integral part of programs and its role in the educational process solidified.

#### Continuous renewal

One of the major concerns of educational administrators is that declining enrolments coupled with tenured staff could quickly produce outdated faculty if renewal programs are not planned and implemented continuously. Familiarizing faculty with new equipment and techniques is essential to maintaining program relevance. There is a further need for both faculty and administration to keep abreast of instructional deliveries and educational innovations, especially faculty recruited from business and industry who have had little training in the teaching/learning process. The future relevance of graduates depends on such a staff renewal program.

Life-long learning: who will the target groups be?

The community colleges were intended to become a clear alternative to university. Some educators feared that colleges might replicate the style of the university. However, the colleges responded with creativity and ingenuity, establishing a variety of post-secondary career programs for large numbers of high school graduates. They also responded to the culturally different, the disadvantaged, senior citizens, and other community target groups. The future of the community college is highly dependent on accurately assessing the needs of target groups. Educational researchers have documented the need for adult education in the years ahead. The post-war population is now completing certificate and diploma programs. Changing technology and the rapid rate at which knowledge update is required will produce a large population of adults in need of continuous renewal. Career research has indicated that people may need to be retrained three to four times in their working life. A future direction must therefore be to prepare

institutions for the life-long learner. Funding mechanisms, educational deliveries, and teaching/learning styles must get set to meet this challenge.

## Innovation

Some presidents have described their colleges as clear educational alternatives, while others depict them as a creative community delivery system that has been all things to all people. It may well be that we can no longer afford this successful educational experiment, but the innovative environment that characterizes the institution should be preserved. Financial mechanisms, appropriately administered, should be made available in the form of "soft" dollars to challenge colleges to maintain their present position on the leading-edge of change".

## Re-defining the mission

This paper postulates an institution changing to meet the needs of a rapidly changing society. Shrinking enrolments, shifts in target groups, and the need for increased productivity imply a different role for the colleges in the future. Shifting age groups provide greater numbers of students; approved medical programs increase the number of students; approved business and industry need more specialized skill training; and changes in life-style which will affect leisure time activities. At the same time, fewer resources will be made available. Some administrators are calling for increased tuition, while others advocate program rationalization. How will the role of the community college be defined so as to be a clear alternative to secondary school education and the university? The taxpayer cannot afford overlap and duplication.

The community colleges have served a significant social purpose well. But the time has come to re-examine their mission. Each college must then assess the needs of its community and develop priorities and objectives in attempts to

maximize its resources. It is essential that the colleges of the future be proactive rather than reactive.

#### Accountability and productivity

We have expounded the virtues and successes of community colleges while indicating problems of shrinking financial resources, levelling enrolments, and need for new thrusts. There has never in the history of education been a greater need for creative management. Cutbacks with the stroke of a pen are difficult, but the challenge lies in maintaining results. This implies getting more for less. Cutting costs by reducing some support areas and maintaining only essential college services may not be as productive as it appears on the surface. The cost-benefit of these changes is a critical question, as in the delivery of all educational services. What does it cost to produce a graduate? What are the benefits to society of various programs and how do they differ? What is the cost of not reviewing staff skills? What is the cost of not encouraging innovation? Clear systems need to be established that attend to questions of productivity and accountability so that cost-benefit decisions can be made. How we answer these questions in the next ten years will shape the third decade of the community college.

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## DISCUSSION

### THE COMMUNITY COLLEGES AND VOCATIONAL TRAINING

R.F. GIROUX In 1960 I was director of a guidance centre in a local high school. At that time we were looking at developing the new reorganized secondary school systems. Some pretty powerful data were emerging. Of one hundred students attending grade nine, forty would complete grade 12, fifteen would complete grade 13, and six would complete university. That's a 94 per cent kill rate for a system. Would you go to a doctor that killed ninety-four out of a hundred patients when they were healthy to start with? Of course the ninety-four were finding alternatives. They were going to nursing schools, institutes of technology, vocational schools. But the general feeling was that we weren't getting enough through. If we were going to develop the resources of Ontario, we needed a clear alternative. And then came the community college.

In the announcement, the minister said the nucleus would be the things that were in place - vocational centres, adult training, apprenticeships, provincial institutes, and institutes of technology. Nursing came into the system later. Now if we could get one president and a common cafeteria - that's what some colleges have in common - it could be the beginning of a neat institution. With that in mind, a contingent went to Florida and California to inspect two of the finest master systems in community college development. They developed a list of characteristics. The community college was to be democratized, was to give equal opportunity to everyone. Secondly, it was to be accessible. Placed in areas where people would not have to drive, residences wouldn't be required. Thirdly, there were to be open doors, not revolving doors. Every adult aged nineteen and over was to be able to come into the institution. Fourthly, they were low-cost. Fifthly, they had a career orientation. Sixthly, they had an assessment or guidance component.

The community dimension was the central idea. The walls of the college were to be the walls of the community. And they were to be teaching institutions, not research institutions like the university. From the Florida and California systems came the programs mentioned. The first was occupation-vocational education. These were adult training programs, two- and three-year career programs. Then it was thought general education should be a component. People should be able to solve problems and look at society in larger context. There should also be some part-time studies, a community services dimension. The American comprehensive community college consists of career programs, transfer programs, and community services programs. It was decided in Ontario we would strike

out the professional services programs. Our colleges have community services and career programming.

R.B. MCAUSLAND Ten years later, what had happened? When the system started in 1967 and the institutions that Roy talked about were formed into the nucleus and became the colleges, there were some twelve thousand full-time students and fourteen thousand part-time students. Ten years later, in 1977, the twelve thousand full-timers had grown to 81,000. And it will be up by 6 per cent in 1978. One of the most dramatic things, though, is the community base, which went from some fourteen thousand part-timers to nearly half a million. Over half a million people that are involved in one year in a community college, which against the population of Ontario is something like one to fifteen. All in all, in some particular jurisdictions one out of five are being touched in any one year by activity in the community college.

Of the 81,000 full-time students last year, full-time post-secondary accounted for 61,000. Often the image of the college hinges around that group of young people out of the school system. But the remainder, the number of other people is significant. Full-time equivalencies in adult retraining is 13,500; similar programs for fee-payers approach four thousand, and apprentices, again on equivalency basis, are over three thousand.

The autonomy of those colleges is still a significant reality. Although there is a common thread in admission, the way they have responded varies from community to community, so it becomes extremely difficult to generalize. A middle-sized college such as St Clair is nearly 3500 students full-time. When the college started it was only six hundred students. We're up to twenty thousand part-timers, served through forty-six programs. When the college started it had only two programs. We operate out of three major campus locations, a major one in Windsor, a smaller one downtown Windsor, and another in Chatham, but we have activities too in church basements and in schoolrooms throughout the whole of Essex-Kent county. Well over forty locations have a teaching-learning activity taking place. We operate currently on a gross budget in the area of \$20 million.

Our students range essentially from seventeen to twenty-two, the majority being nineteen years old. Over 60 per cent are female. When the college started it was 36 per cent, so there's been a dramatic shift with a lot of implications in it for the college and its operation. Almost 77 per cent of the students expect their attendance at the college to lead to a well-paying job after graduation. I think that's a key factor. The majority of them are there because they expect to get a job. And yet over 32 per cent of them are not sure they've chosen the right career. About 30 per cent of them seriously doubt their ability to complete the program because they feel they lack the preparation and study skills. That is another challenge for us, of course.

Our primary concerns are to protect our main programs through evaluation and updating; to get better management information systems, better and more accurate data for

decision-making; to develop more programs for the adult part-time student and other emerging target groups such as women and native peoples; to undertake new initiatives in Employer-Sponsored Training, and to establish a more effective learning environment through staff renewal.

There are all sorts of pressures coming on the colleges to assume different and more varied roles. Much of our activity now does not involve teaching and learning in the institution at all - things like the OCAP program referred to earlier and career action centres. More and more frequently we get a feeling we're being used by the government as an infrastructure for the delivery of economic and social policies. And that's probably good, because we do represent an effective infrastructure represented in each community throughout the province. But we are forced in that sort of role into competition with other social agencies and institutions, each of which is seeking to define its mandate too. It seems to me that the government has a choice: as these overlaps occur, one can suffer the consequence of some wastage in the interests of social Darwinism and may the best man win; or one can define the mandate a little more clearly and avoid the wastage that could possibly occur. There's merit, I think, in either of those, but one would like to know sometimes the rules of the game that we seem to be in.

Another question is the re-emphasis on industrial training. Until now the idea was to market the college to the high school student. It's now become obvious at St Clair that we must begin to market to industry and our graduates and respond to their needs. I think we have to re-examine the relation between the colleges and industry.

A third concern is continuous renewal. After ten years the investment in both plant and, more particularly, people cannot be allowed to atrophy. There must be an investment of time and energy to keep it vital, to keep it relevant. That particular problem is certainly a priority in most places.

R.F. GIROUX We can no longer afford the duplication in equipment and community service programs with high schools and in career programs with universities. And unless we get some partnerships with businesses and industry and a rental/leasing kind of arrangement - move in after they shut down their shops and start to use them, for instance - programs like Employer-Sponsored Training will have great difficulty.

Another direction is towards remedial programs. Now in Essex and Kent Counties alone, according to the 1975 Canadian census, we have 150,000 students aged 15 and over out of school. These are young adults who have less than grade 10. There's no way they're going to get to the job market without some form of help. Moreover, our students have reported to us consistently in questionnaires that they want skills in reading, writing, math, and studying.

As for general education, our alumni have a lot to say. When they were in college they didn't want psychology, sociology, decision-making and so on. They wanted to get their hands on the equipment. But after they have been two years in the work force and get asked to do a report they find they can't communicate at meetings. They tell us we ought to



refocus our curriculum. So we're going to have to look at the longer-term competencies of students.

R.B. McAUSLAND In the ten years since the formation of the college, a number of things have changed. Financial strictures have certainly multiplied. There has been a certain stabilization - some would say bureaucratization - which is inevitable in something as large and as resource-consuming as the college system is. Another phenomenon which I don't think any of us would have predicted is the over-subscribed program, where labour markets have not matched the demand for education and we have had to restrict the numbers of students coming in to various programs. The demographic reality of the baby boom wave has passed, and that is an obvious change. Another factor is the syndicalism of the teachers, which of course means management in the context of provincially imposed and negotiated strictures. Rising expectations on the part of young people has certainly not decelerated, and in the ten years has become an ever-increasing matter of concern particularly in the area of guidance. And there has been a withering away of or a moving back on the part of some colleges from the external advice and direct community involvement with interest groups which was one of the founding principles of the community college system. Given those changes in the system, it is obvious that the time has come to redefine the mission.

Another piece of unfinished business for the college is the French community. The Committee on Franco Ontarian Affairs have put forward a brief requesting a twenty-third community college. To me that's clear evidence that the existing system hasn't met the expectations of that group, and a number of colleges have banded together to try to deal with the issues within the French-speaking community.

H. NOBLE Given the clear success of the colleges in dealing with job training in the last ten years and the apparent disenchantment with universities, how do you think the burden on the public purse is going to be resolved?

R.B. McAUSLAND In fact it has nothing to do with syndicalism; it's a political decision. Now the community colleges are doing a good job. I challenge anyone to say so. The fact is that students are voting, declaring their intentions, with their feet. We've got more people coming because we can provide them with the training that, if they want to put effort in it, comes close to guaranteeing them a job.

There are as many students coming to first-year colleges as to first-year university. The university population is bigger because they have four-year programs, but in terms of people touched and the success of the colleges in the field of continuing education, which is now being looked on rather jealously by some of the universities, I'm confident that the college system can stand up to that sort of competition.

A.M. THOMAS What I liked particularly, Bruce, is your sense of the need now to re-examine the role of the colleges without prejudicing what I think all of us agree has been a remarkable



success over the first ten years. My hope is that you can do it and that the great complexities that you have to deal with will not result in trading on what's made you successful and making you less flexible.

A frequent comment in the colleges today, said with some pride, is that you don't take the same people you took ten years ago. What worries me is that there is a continual striving to become more exclusive. In the ten years after you've put a system in place to deal with a part of the population you discover that they're no longer dealing with that particular part of the population.

Secondly, one of the things one sees signs of, is in your comment about guaranteeing jobs. If you become committed to virtually guaranteeing jobs, then your admissions policy becomes subject to the kind of jobs you can get. And you become subject to admitting only those students whom you think you can guarantee jobs for, which takes us very close to the Russian system, where the big jump is to get into the educational agency. Once you get into that you get a job, but the real problem is getting in. That's not the way we have tended to regard our educational system till now.

Thirdly, in the matter of co-operation, what is tidy from an educational programmer's point of view is often not effective from a student's point of view. All over the western world, in the developed countries, what is inescapably appearing is that 50 per cent of the population makes use of the educational facilities throughout their whole lives, and 50 per cent doesn't. Something that worries me is that that hasn't changed much in the ten years since the colleges have been in existence. True, these new institutions are doing an important job for a part of the population, and I'm not suggesting we should give it up. But there's a very large job we're not doing, and as a political democracy, we can't afford to have half the population left out because they will frustrate needed changes at the ballot box because they won't understand why those changes should take place. They will be threatened by them and they're being gypped, and by and large they are being gypped.

One further specific matter is that the area where I think some administrative inter-agency co-operation can and must take place and is easiest anyway is counselling and information. The first thing every agency in a community understands is not to compete foolishly for the same population while leaving out all the others. We've got to do the retail job better. Can we start getting those centres of counselling out of institutions and putting them where much wider ranges of people are more comfortable? Lots of people never get inside the doors of an institution. It takes a describable and important decision on the part of an individual to go in the door of a college or a high school. Lots of them just won't. But they do go to shopping centres; they do go increasingly to public libraries for a whole variety of services. They can shop; they can gawk; and they can encounter a counselling system if we'll learn how to put them out there. Along with your forty teaching-learning centres in church basements there probably ought to be as many

counselling and information centres run in co-operation with the school board, the university, and the employers.

R.B. McAUSLAND There has been an admissions study, and you're absolutely right - the tendency towards elitism is there, and it's being debated I suspect in every board room of every college. With limited numbers of seats available in certain programs, could we not restrict it, say, to grade 13 grads? That changes the nature of the college. I think I speak for most of my peers and other college presidents when I say we are resisting this as best we can.

A.M. THOMAS We need to free ourselves from a series of assumptions that derive from a primary preoccupation with the young and to remember that adult students are also taxpayers and voters. We often forget that fact in assessing the political value of our educational institutions where the predominant numbers of students are adults.

G. MURTAGH One thing that concerns me is counselling. Let's take a look at the Ontario community college campus network. Very often they're outside of the town limits or well to the edge of the community, and as a consequence the very people who need them most do not have access to them. I had hoped at that time that we would see the institution of career counselling services in shopping centres, that type of thing. At one point I heard that the counselling centre in Windsor was to be in the IBM building. I have a deep-seated suspicion that people who are unemployed or in really serious need of counselling are probably not to be found in the IBM building or that IBM can do a fine job of supplying the kind of counselling that's needed.

D.C. AHRENS We have four counselling centres. One is in a van, which goes from door to door, shopping centre to shopping centre, because the community in question thought that's what it needed. The one in Thunder Bay is in a downtown location. The one in Niagara Falls is in an old home at least twenty miles from the nearest college. And the one in Windsor is right in the heart of town. Not one of the counselling centres is located on a college property.

D. DeANGELIS Because the largest employer in our area happens to be the automobile industry and manufacturing facilities associated with automobiles, what percentage of St Clair College graduates are being accepted by, say, General Motors, Ford and Chrysler, in relation to the training that they receive at the college. Do the manufacturers need to feel you are satisfying their needs in specific skills?

R.B. McAUSLAND I wish I could answer that. I suspect that somewhere back at the college, I could extract that data, Mr DeAngelis. I can only speak subjectively. A number of our more active alumni are working in Chrysler, Ford, and General Motors, but how many of all our graduates I have no idea. Acceptability seems pretty high because they keep coming back to do recruiting and they are active in our various advisory

groups. Ford has asked us to do most of this training except that which is specific to their machines or their company. As for the skilled trades, I think there's a certain ambiguity. The automotive companies have had slightly different policies on having or not having apprenticeship, on registering people in the skilled trades or not registering them. Despite all those things we have done a very large business in providing for part-time apprentices. This year over a thousand registered apprentices are taking the academic components of their training at St Clair College, and we're scurrying around like the devil to find classrooms to do it all.

G. MURTAGH Don, where do they get the counsellors and what is their background? I'm a little wary about pulling somebody out who has taken, say, an official counselling degree and slotting them in. In many instances people out of, say, business might find this kind of work attractive, might be more suitable, and of course from other types of occupations as well.

D. AHRENS I think we're putting an awful lot of responsibility on secondary school counsellors. And we're not getting the individual receiving the service committed. If a student or a trainee says, "my counsellor thinks that I should be ... " we've lost everything we've ever gained. The commitment has to come from the individual. Students have to recognize first of all that they've got some good basic skills, and they've got learning mechanisms. Jobs are available; it has to be something they want to do. You can call that self-awareness. My idea of counselling is to give individuals the means of discovering for themselves what they want to be. That decision is their own, and it's a commitment of their own. The idea of having somebody out of industry who knows an awful lot about motor mechanics and machine shops is no better than having secondary school teachers who think they know a lot about being economists, doctors, and lawyers. Individuals receiving the service have to be committed to the process and make their own decisions based on facts and figures.

R.F. GIROUX A basic strategy we try to use in all our counselling programs is to have a counsellor who can relate to the culture he's working with, the target group. Academic credentials mean nothing. If you're working with ex-offenders, somebody has got to know that culture to be able to move in it effectively, and a PhD would get eaten up in it.

The target group for the Ontario Career Action Centre is aged eighteen to twenty-five. We were looking for somebody that could relate well with Manpower and was familiar with the youth who were unemployed at that time. We took one of our counsellors out of the Manpower program who had done a lot of community work. He set up a network with local high schools as an advisory committee to refer the students who were dropping out of school to the system. On the other hand we have not attended to the senior citizen very well in terms of their next career. In fact we're really looking at the unemployed youth, and we try to get a counsellor who knows the existing agencies and can make the referral. One counsellor can't be all things;



he's got to be able to make the referrals, and if he's lost the inner network or he's lost.

A.M. THOMAS I just wanted to chide Roy a little for that racist remark about PhD's. I'm sure we could find a couple of PhD's who we're themselves offenders, you know.

W.D. McVIE When people talk about secondary school counselors, I don't know whether they realize that at that level the requirements of a counsellor have been laid down by the Ministry of Education and they're rather limiting. Those criteria have been developed by the counsellors themselves and pressed on the government as requirements for the Ministry. They tend to be far too academic to meet the demands of students. That's why I was pressing for all the teachers, particularly shop teachers, to take a part. The type of counsellor we have has great advantages for certain elements in the secondary school, but has problems in say steering others properly to the college unless we get the kind of co-operation you are mentioning.

J.A. STEWART Let's say ten years from now you're the minister of education. How do you distribute the money between elementary and secondary schools, between universities, colleges, and industrial training? Does anyone want to tackle this?

G. MURTAGH It is a crucial question. Based on the work I'm involved in and my own constituency, I probably would put a great deal less emphasis on the university element, or maybe adjust it to something like continuing education where there are more opportunities for my people to be involved. But that's awfully simplistic and off the top of my head. I can't see answering that question this afternoon.

A.M. THOMAS I think we have to separate out first the revenue for the elementary and secondary school system, which will be subject to quite separate dynamics from the others as long as education remains compulsory for children. As for the others, at the moment, I believe, it is a matter of \$210 million for colleges and \$650 for universities or something like that.

H. NOBLE The Ministry's budget is about \$1.3 or \$1.4 billion. There's a little more than that going to the colleges. The ratio is about 35/65.

A.M. THOMAS I think that will change and come very close to 50/50, and maybe more, because it makes a lot more sense to me to have a much bigger college population than a university population. I think the kinds of skills that the colleges develop are rewarding, are maximizing, are spread far more generally throughout the population than the skills the university promotes. We sold an awful lot of people a bill of goods in the fifties about what the universities were able and supposed to do. I think the students are beginning to see that and the shift towards colleges is very realistic for them.



One of the really interesting, intellectual developments in the whole area of adult education and training is the shift in concern from education to learning. While training and education may be different, they share the fact that whoever is being either trained or educated can learn. Most of our experience with learning has been through the perspective of educators in a child-centred system doing specific social tasks. We're now beginning to find that learning adults under voluntary circumstances have quite different characteristics.

Education is much like health care. We allowed all our health delivery systems to get associated with hospitals, and hospitals are monstrously expensive organizations. The same thing is true of education. We've identified all our learning problems as educational ones and allowed them to become concentrated in colleges and universities, which are very expensive. We're now trying to move back one stage and outline a bunch of learning demands and services that can be satisfied in other ways than with teachers, buildings, and administrations. We're taking a particular kind of learning out of the expressly educational system and trying to put it back into a system which is not educational but where the same learning goals can be achieved.

E. MURTAGH What do we do with the universities then that really ought not to be in operation? Do we simply close them? Or do we find new, alternative uses for them outside the traditional post-secondary system?

F. POGLITSH It sounds rather easy to say that this 75/25 split will become a 50/50 split. I could fall off my chair when I feel that. How soon is it going to happen? What are the ramifications and the implications of that kind of shift? Do you really think that can happen?

A.M. THOMAS I think it's inevitable. It's a pattern shared by almost every other country in the world, where far more resources are now going into things like our colleges. They may be polytechnics, sandwich courses, a variety of things. This balance is being clearly redressed. It's always been a large feature in the Soviet system, though I don't know about the Japanese system. I think it's inevitable.

G. DeANGELIS There has to be a central system for collecting what is needed as far as skills are concerned. We have to provide the basic education that everyone needs, to learn to read and write and do arithmetic, etc. Beyond that there's the need to know what opportunities are available to someone to achieve a certain goal, whatever it may be. Once that need is determined, and it would have to be done on a cyclical basis I guess, every five or ten years, you feed that into the system so that the general public becomes aware of these opportunities. You then have to start letting the parents know that all their sons and daughters cannot become doctors and lawyers and sophisticated, highly paid professionals, that someone has to gather the garbage and make the tools and so on. Then in the counselling process you start to let young people know that

if they enter a given career this is what it entails, this is where it starts and where it finishes, and what your opportunities are. Then you gear the educational system to provide the service to that particular need. Of course that entails opening opportunities for, say, apprenticeship training; more employers have to help provide that opportunity. It has to go beyond that too. You need an understanding between those that are going to provide these services that one goal can be achieved probably through the institutional route; another through a combination of institutional and shop training. The taxpayer is obliged to pay a certain portion of it, and industry, which derives many of the benefits from skill training, would have to pay its fair share too. So that everyone who wants to go further than elementary school will know where the opportunities exist and how he has to go about achieving those goals and how it's going to be paid for, either through tax dollars or industry support from the profits achieved by the use of those skills.

R.F. GIROUX I think that was really well said. It really summed up a lot of things I think.

N.M. MELTZ I agree, especially about the need to look ahead. The state of the art is not very highly developed. I think it was mentioned yesterday that very few firms are engaged in long-term projections. Nevertheless, that doesn't mean that we can't take some look at the future.

W.D. McVIE I might as well be brave and say, look, we got rid of the buggies and the automobile factories took over and there were new buildings and we got rid of the old ones. Universities are going to have to go through the same process. It's going to be tough because it's hard in Toronto when there's a school on each side of the street to close one of them in order to accommodate another need. But we're starting to do it. And it seems to me that some of the universities are going to become academic transfer units rather than full universities.

I would say that the teacher-training element in Windsor has to disappear within two years. Some of those old buildings may become college buildings in the process, but we have to face up to what is surplus. It's a tough decision and one that gets everyone's emotions up. Every alumni from Windsor will scream it's turned into a college instead of a university, and yet something like that is going to have to happen. And at the public school level we're going to have to close schools because we just can't keep them open. If the university enrolment continues to drop, as I see it doing, they're going to have to withdraw from some of their activities and some people are going to be redundant just as they are if we stop producing cars. It's going to be tough, but labour has faced it for years. The academic element is going to have to face it too. If there are no jobs, then you've got to do something else.











